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ABSTRACT

This overview is designed to provide those readers who have just begun to study educational planning with a useful point of departure for the more intensive examination of educational planning literature. The first chapter offers definitions of concepts that are the subject of chapters to follow. The discussion of educational planning in Chapter II develops the thesis that planning objectives, structures, and outcomes are shaped by the general educational policies that elicited the planning activities. Chapter III shifts attention from some of the more quantitative aspects of educational planning to the qualitative considerations of innovation, technological forecasting, and alternative futures. Two major problems that merit the attention of both the theorist and the practitioner are discussed in Chapter IV: (1) the problem of bias in prescriptive theory and (2) the gap between planning theory and planning practice. The description in Chapter V of curriculum planning at a provincial level presents both an empirical report as well as some of the methodological problems in researching planning behavior. The final chapter offers some prescriptive theory along with a set of guidelines for the development and improvement of educational planning at various levels. (Author/JH)

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Perspectives on Educational Planning

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Human Resources Research Council

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PERSPECTIVES ON EDUCATIONAL PLANNING

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FOREWORD

This publication is intended primarily for those readers who have just begun to study educational planning either because they are preparing themselves to assume increased planning responsibilities, or because they wish to undertake continued study and research on the general topic. Although the general level of the substance of the various themes could probably be classed as introductory, even those who are already familiar with planning as an area of study or of practice might find the perspectives to be of some interest. Hopefully, this overview of selected aspects of current thought and activity will provide readers with a useful point of departure for the more intensive examination of educational planning literature.

Need for such an overview is made clearly evident even through a cursory examination of the literature in this diverse, and at times divergent, field. The diversity in the literature stems from the existence of numerous entry points into the general area of study and practice; it is readily apparent that many activities can be grouped under the heading of *planning*. The divergence stems both from the diversity and from the lack of widely accepted general frameworks for the analysis of planning. Consequently, partial analyses are frequently represented as being complete in themselves and the relationships among different approaches are usually not made clear. Educational planning remains a vague

concept; the necessity for clarification is accentuated by the increased attention which the function is receiving at the present time.

The increased attention might more appropriately be termed as increased pressure for planning from both within and outside educational systems. It is conceivable that such pressures or demands could lead to at least two possible responses on the part of administrators in education. One possibility is that the response would be a verbal "Yes, we do engage in educational planning," together with a frantic search for activities to which the label *planning* might be attached without any modification in ongoing activities. Another possibility (and one which is more likely) is that structures might be imported and techniques adopted which are inappropriate for our problems and the situations in which they occur. Through such uncritical borrowing we run the risk of committing the same errors and following the same blind paths which have thwarted those who have attempted to carry out educational planning elsewhere. It is the hope of the authors that this publication will stimulate critical thought and analysis which will help us to avoid at least some of the pitfalls.

The chapters in this monograph are revisions of reports which were prepared as part of the work carried out in the Education Planning Mission of the Human Resources Research Council during 1970-71. The reports were submitted initially to the Commission on Educational Planning and, hopefully, may have influenced the work of the Commission and the substance of its

final report. The financial assistance provided by CEP is gratefully acknowledged as is the provision of various resources by HRRC for both the initial research and the publication of these papers.

Views or opinions expressed in these papers are those of the authors and should not be construed as those of the Human Resources Research Council.

Edmonton, Alberta
May, 1972

E.M.
P.B.
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CHAPTER I

INTRODUCTION

E. Miklos

Since 1960 the expansion of interest in educational planning has been extremely rapid. If one were to examine the increased attention to planning in terms of criteria such as specialized journals, numbers of papers written on the subject, amount of research in the field, or number of persons who are responsible for planning activities at various levels, it is likely that the observed growth would be of the order of several hundred percent (OECD, 1970:7). This growth has been most pronounced in developing countries and in the developed countries of Europe: however, the concept of planning is now beginning to have a significant place in the theory and practice of educational administration on all continents.

It is difficult to outline in a comprehensive manner all of the variables which have led to or which have influenced this growth because new concepts and new technologies of planning have filtered into the field of education from diverse sources (Chase, 1969:51). No doubt, increased attention to planning is attributable in part to changing social, economic, political, and educational conditions as well as to the general acceptance of the concept--it

seems unreasonable not to support some form of planning--and to the emergence of techniques which have increased the sophistication of activities which have generally come to be associated with educational planning. More particularly, the demand for different approaches to planning has arisen from the recognition of certain deficiencies in existing practices; the crisis-initiated, short-term nature of past and present approaches to educational planning appear to be incomplete strategies for coping with problems confronting educational systems. Factors such as the rapid rate of change in technology, the rising costs of education, and the pace of student unrest have created an increased awareness of the need for change of some kind in the educational enterprise. Implicit in the views expressed by various interest groups whether they be students, teachers, administrators, parents, or politicians is the assumption that we can do things differently in order to achieve some purpose. Thus a newly-formed emphasis on the concept of educational planning as it relates to change inside and outside educational systems has grown out of somewhat desperate attempts to determine where we are, where we want to be, and how we are going to get there (Hansen, 1968:59). Regardless of specific source of demand or specific conception of the process, educational systems (and administrators, in particular) are now being urged to engage in planning by scholars, by professional groups, and by the general public. Administrators are the first to be confronted with the problem of determining what is to be planned and how the planning

is to be initiated or changed from existing practices. A first step in responding to the challenge is to clarify current concepts of planning.

Definitions of Planning

The intent of this publication is to work toward some useful conceptual clarification for those who must get on with the task of improving or implementing planning. It is only too obvious that such clarification will not be achieved by dwelling at length on the definitions which have been proposed by various writers; yet some attention to definitions is necessary in order to provide an orientation to the general substance of these analyses. Where appropriate, more specific definitions are given in individual chapters or sections.

The difficulty of defining educational planning has been expressed well by Coombs (1970:12):

> Educational planning as we know it today is still too young and growing too rapidly, and is far too complex and diversified a subject, to be encased in any hard and fast definition, good for all time. This is why no generally accepted definition of educational planning yet exists, much less an acceptable general theory.

The absence of a generally accepted definition or theory of planning does not mean that there is any lack of conceptions of the planning process and of how planning should be carried out. The definitional

problem arises from the fact that these conceptions appear to be more divergent than convergent and more diverse than unified. Views of planning vary greatly depending upon whether the subject is discussed by an economist or an educator, by a politician or an administrator, by a theorist or a practitioner.

The theory-practice contrast provides a particular source of difficulty in attempting to relate definitions or conceptions of planning to activities in the real world; empirical referrants for elements in elaborate planning models are difficult to identify in the ongoing activities of concrete organizations. It is equally difficult to see just how activities might be structured in order to approximate those models which tend to be prescriptive in emphasis. For example, the planning literature tends to talk in terms of a special breed of man who who is labelled "planner" and who presumably has skills which are quite different from those possessed by other members of the organization. However, it would seem from casual observation that within an organization planning activities are carried out by different persons at various levels, few of whom are labelled as planners. The problem is compounded by the difficulty of distinguishing between planning and such other activities as decision making and evaluation to which it is closely related. The dilemma faced by one who intends to propose a definition has been stated well by Dror (1963:46):

> Simultaneously, our definition must be wide enough to include planning processes taking place in different

> contexts and sharp enough to distinguish between planning and other related processes.

Variations in the extent to which various definitions deal effectively with this dilemma are to be expected.

Although there is a lack of complete consistency in definitions of planning, various approaches do have certain elements in common. Perhaps one of the most distinguishing elements in definitions of planning is the reference to rationality. For example, Coombs (1970:14) states that educational planning in its broadest sense is

> ...the application of rational, systematic analysis to the process of educational development with the aim of making education more effective and efficient in responding to the needs and goals of its students and society.

Similarly, Eide (1964:80) sees the role of planning as

> ...increasing the degree of rationality in political decision making, through exploring the possibilities for basing such decisions on empirical evidence and thereby identifying more clearly the areas of genuine political choice.

These two definitions taken together not only emphasize increased rationality with respect to means but also the identification of alternative choices and concern with goals.

A second characteristic common to (or implicit in) various definitions of planning is future orientation; planning is seen as a process through which an effort is made to prepare for future events and also, in greater or lesser degree, to influence the outcome of future events. Even though the conception of future events, the specific types of preparation, and the forms of

influence will vary, it is clear that preparation for the future is included in most definitions. As Coombs (1970:14-15) suggests:

> Educational planning deals with the future, drawing enlightenment from the past. It is the springboard for future decisions and actions, but it is more than a mere blueprint. Planning is a continuous process, concerned not only with where to go but with how to get there and by what best route.

Ackoff (1970:4) presents a definition which relates planning to other aspects of the decision process:

> ...we can say that planning is a process that involves making and evaluating each of a set of interrelated decisions before action is required in a situation in which it is believed that unless action is taken a desired future state is not likely to occur, and that, if appropriate action is taken, the likelihood of a favorable outcome can be increased.

Anderson and Bowman (1968) have found it useful to define planning essentially as Dror (1963) did: a process of preparing sets of decisions for future action.

For purposes of providing general guidance to the reader, the following composite definition of planning can be proposed at this point. It is made up of definitions similar to those above; hopefully, it will contribute to the development of further conceptions which may be even more meaningful. It would seem that planning is best conceptualized as one aspect of the decision process within a system. In the broadest sense of the term, it is that dimension of the decision process which involves (1) the identification and refinement of alternative goals: (2) the development of alternative means for achieving selected goals;

(3) the identification of the most promising (most efficient and effective) means. Implementation processes are excluded; however, planning could also include: (4) monitoring the extent to which goals have been achieved, and (5) on the basis of information gained, revising means and possible goals or targets. No doubt, such a definition errs in the direction of including too much and excluding too little of that which would serve to differentiate planning from other organizational processes. This error is made consciously on the assumption that a less restrictive definition will also be less misleading at this stage and will emphasize the interrelatedness of various aspects of the decision process. Although planning may be regarded as a separate organizational function, to be distinguished from other functions such as policy making and policy implementation or research, within any given organization the division line between such functions may be drawn in many different ways (Eide, 1964:72).

An Overview

The definitions which have been presented have served in one way or another to direct discussion in the chapters which follow; however, each paper develops a somewhat different and complementary emphasis. The discussion of the context of educational planning in Chapter II develops the thesis that planning objectives, structures, and outcomes are shaped by the general educational policies which elicited the planning activities.

Although effective planning itself shapes policies, the planning activity develops within a framework of existing policies, and the nature of those policies determine to a considerable extent the type of planning which results.

The discussion on context places more emphasis on the so-called quantitative approaches in educational planning; this is balanced by Chapter III in which Bourgette presents a related analysis of the more recently developed qualitative approaches. The literature on planning has given much attention to such quantitatively-oriented approaches as manpower planning, social demand, and the budgetary emphasis. More recently the attention has shifted to an emphasis on innovation, technological forecasting, and alternative futures which is developed in this chapter. Of course, a balanced approach to planning in education should include potentially the full range of the various approaches and strategies which are available.

These two chapters include an overview of the major prescriptive approaches to planning. In Chapter IV Bourgette discusses some problems which merit the attention of both the theorist and the practitioner. The first part is directed toward the problem of bias in prescriptive theory while the second discusses the gap between planning theory and planning practices.

Reference has already been made to the problem of isolating planning as a process or set of activities from those other activities to which it is related. The description by Cowley in Chapter V of curriculum planning at a provincial level presents both

an empirical report as well as some of the methodological problems in researching planning behavior. Studies of this type serve as an important measure for various models of planning, for determining the extent to which models do or can provide verifiable descriptions of what actual planning behavior is like; however, no tests of models are developed explicitly, and the comparisons and contrasts are left to the reader.

In the last chapter we are bold enough to engage in some prescriptive theorizing on our own, to offer some guidelines for the development and improvement of educational planning at various levels. Few of the prescriptive statements are based on empirical research; they appear to be suitable guidelines either in the light of past experience or in terms of what would seem intuitively to be feasible given the variety of constraints under which planning must be carried out. The analysis should be viewed primarily as on orientation to the general direction which thought about planning might take, rather than as any complete statement, since the purpose of the publication is to stimulate thought about planning behavior and not to propose final solutions.

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CHAPTER II

THE CONTEXT OF EDUCATIONAL PLANNING

E. Miklos

> Planning is a natural process in human societies, and examples of the application of planning to education can be detected in the history of the remotest times. Twenty-five centuries ago Sparta set up an educational system exactly suited to certain military, social and economic purposes which were precisely defined and Plato, in *The Republic*, proposed a scheme in order to make school the servant of society. China of the Han dynasties, Peru of the Incas and many other civilizations planned their education with greater or less rigour (Unesco, 1970:27).

It is interesting to note that even though in some respects planned education appears to have a long history, systematic planning in education is a product of relatively recent times. The USSR included education in its first Five-Year Plan in 1923; however, educational planning was not adopted in other European countries until the 1950's. Since then it has received increasing attention in both developed and developing countries. This is consistent with the observation that greatest interest is attached to planning during periods of great social change (Unesco, 1970:27). Perhaps it is debatable whether planning, however defined, could be considered a *natural process* in any sense other than that there are certain conditions under which some form of

planning tends to emerge. There are probably more examples of long periods of time without planning in particular fields than there are of the planned or planning segments. One of the most helpful insights into the development and application of prescriptive planning theories would be an understanding of the conditions which create a pressure for planning and of those conditions which modify the planning response, particularly in education.

The general theme of the analysis which follows in this paper is that prescriptive theory and practice in educational planning vary according to the major features of the educational policy which elicits planning activities. For purposes of analysis and discussion, it may be useful to identify five possible dominant emphases in the educational policies of social and political systems. These dominant characteristics are in effect the posture which the political system adopts toward education; they are an indication of the general function which education is expected to fulfill and reflect significant cultural, social, and economic conditions. In terms of this general conceptualization, an educational system might find itself under the influence of particular or various combinations of the following:

1. a policy which supports the general expansion and extension of formal schooling;
2. a policy which views education chiefly as an instrument of economic development;
3. a policy which views education as an instrument of social change;
4. a policy which emphasizes increased efficiency in the operation of all levels of an educational system; and

5. a policy directed toward the qualitative improvement of education.

It is evident that a particular social-political system may have educational policies which include the full range of those indicated; however, it may also be possible to find different emphases in different settings as well as variations over time in the same system.

The starting point for the analysis presented in this paper is the assumption that the prescriptive models or theories which have guided planning activities in the past have been shaped by the forces which elicited the planning activity. These theories of and approaches to planning are meaningful only if the context within which they arose is understood. Perhaps the most significant aspect of context is the general character of educational policies which form an environment for planning. These policies reflect and are shaped by other contextual elements: economic and political circumstances, cultural values, immediate social concerns, and related conditions. In general, the dominant characteristics of educational policy shape the objectives of planning, the focus of planning activities, the structures for planning, the outcomes of planning, and also the problems and difficulties encountered in attempting to plan. This is not to say that there will be no common elements in planning regardless of the policy; it is to say, however, that there may be some distinctive features which are of major significance in the further development of planning theories. Such theories may need to give increased attention to the purposes of planning, to a greater range of policies which require planning,

and to the compatibility of alternative structures and techniques for carrying out the planning function within a system.

In the sections which follow, the kinds of planning which arise from five possible sets of pressures are examined in turn. More extensive attention is given to planning for educational expansion and economic development than to the others merely because of their longer history; planning for qualitative improvements is discussed briefly here and developed fully in Chapter III. Table 1 presents an overview of the discussion by identifying the situation in which each of the five emphases in educational policy are likely to develop and the characteristics of the educational planning which might emerge under various conditions.

Planning for Educational Expansion

In recent decades most educational systems have found themselves in a setting which has not questioned the value of education; it has been generally accepted that it would be desirable to expand and to increase educational opportunities by the upward, downward and lateral extensions of the educational system. This extension of educational services creates increased demands for personnel, for facilities, for equipment, and for resources in general. The situation exists most clearly in developing countries and in any country where facilities are not adequate for the anticipated future demand for schooling.

Table 1. The Context of Educational Planning

Characteristic Features of Educational Policy	Situation	Objective of Planning	Focus of Planning Activities	Structures for Planning	Outcomes of Planning	Difficulties and Shortcomings
Expansion and Extension of Formal Schooling	Increased demand for education; pressure for upward and downward extension of schooling; increased need for financial, human, and material resources	Provide places for all who wish to enroll; manage and control orderly growth and development; forecast needs and devise means for meeting the needs	Demographic forecasts; identification of feasible targets; monitor system through accounts, mapping; identify factors which influence demand	Specialized planning units associated with Ministry; commissions and advisory committees; limited planning at lower levels	An educational plan: predicted enrollments, needed facilities, costs; policy alternatives for meeting the demand	Technical problem of predicting demand; isolation of education planning from other planning; ignores problems of content and efficiency
Education as an Instrument of Economic Policy	Education considered to be important in stimulating economic growth; period of industrialization or occupational shifts; education viewed as an investment in human resources	Develop plan for educational expansion in terms of economic objectives; determine future manpower requirements and implications for training; determine optimal levels of investment in education	Project manpower requirements from growth targets; develop supply-demand models; cost/benefit analysis and rates of return studies	Interdisciplinary planning groups at upper decision levels; linked to other planning units, perhaps; no provision for planning at lower levels	Long and short term plans for economic and educational expansion; targets and policy alternatives for achieving targets; manpower forecasts	Estimating future needs and occupational structure; gap between planning and policy decisions; estimating benefits of education; ignores quality of education and content of curriculum
Education as an Instrument of Social Policy	Continued disparities in spite of expansion; differential participation and success rates; equality or other norms applied to education; active social policy	Identify causes and sources of disparity; identify factors which inhibit achievement of goals; develop policy alternatives	Collect data on participation rates and other conditions; develop indexes of extent to which goals are achieved; set targets and devise policy implementation	Centralized units responsible for data collection and analysis; research; adaptation of the programs at operational levels; more dispersed planning	Information on the extent of disparities; policy and program alternatives for reducing disparities	Precise definition of social objectives; developing effective policy instruments; motivating individuals to take advantage of opportunities
Increased Efficiency at All Levels	Rising costs of education and increased competition from other social services; pressure for demonstrating goal attainment; perceived lack of efficiency	Develop effective means for setting priorities and managing programs; increase system productivity	Goal-setting processes; indicators of performance; simulation; systems analysis; cost-effectiveness studies; budgeting systems	Planning carried out at all administrative levels: national, regional, and local; macro and micro planning; structures for coordinating education services	Objectives or alternative objectives specified; preparation of strategic decisions; cost-effectiveness evaluation of programs	Defining objectives; developing procedures for setting priorities; assessing costs and benefits of alternatives combining coordination and flexibility
Qualitative Improvements in Education	Pressure to reshape entire system; emphasis on adaptation and change; desire to make system more effective in terms of a broad range of goals	Inject qualitative concerns into quantitative planning; modify educational experiences; develop alternative futures and strategies for attaining them	Quantitative and qualitative forecasts; Monitor present policies and practices; research and development; develop policy planning links and information systems	Planning function dispersed throughout the system; participative, decentralized structure; centralized information processing; specialized units for forecasting, research, etc.	Strategies for organizational improvement and goal attainment; discussion and debate of policy alternatives; a more innovative, adaptable system	Reconciling highly participative decision making and efficiency; obtaining involvement; combining coordination with flexibility

The mere expansion of an educational system cannot be taken as an indication that deliberate planning has taken place; growth can and does occur as a result of adjustments made by the system in response to external pressures. The extent of adjustment is limited only by the availability of resources and by the general favorability of conditions for expansion. Systematic planning tends to emerge only when there is dissatisfaction with the rate of growth or with the direction of expansion. General lack of responsiveness to social needs, the absence of adjustment to changed conditions, and the necessity to stimulate desired growth all contribute to efforts aimed at injecting increased rationality into the decisions which are made about and within the system.

The effects of this expansion (and the promotion of it) has attracted the attention of such agencies as Unesco and OECD. In a recent publication the observed conditions are described as follows:

> In the past decade the whole world participated in a spectacular educational "explosion". In many countries -- rich and poor -- enrolment doubled... In this same period comprehensive educational planning took shape and became widely accepted as being vital to the orderly and efficient development of education (Unesco, 1970:9).

The need for engaging in planning seems to be clear; whether the planning activities are able to meet the expectations generally held for them is not quite that clear.

Planning for growth and expansion has as its prime objective the anticipation of demand for education at future points in time and the charting of alternative means of preparing for that demand. Under a more positive policy for educational expansion,

planning may involve targets for the extension of compulsory schooling, for increasing enrollments in post-secondary and technical institutions, for the reduction of illiteracy, and similar goals. The educational plan consists of a specification of these targets or needs and the identification of means for achieving the targets or goals.

Planning which is associated with the expansion and extensions described above has generally been classed as the "social demand" approach to educational planning. It is based on the assumption (usually implicit) that "places in all branches of education should be provided by the public authorities for children who seek them and who have proved that they have the requisite ability to benefit from courses in the particular branch of education in which a place is sought" (OECD, 1970a:iv). In order to determine the probable impact of various "demands" for education, forecasts are prepared of facilities and resources required both in general financial terms and specific needs. Ideally, the educational plan contains estimates for the various requirements together with alternative means and probable costs.

Forecasting based on conceptions of and assumptions about future demand lies at the center of planning activities. Parnes (1962:65-81) has outlined an approach to determining the future need or demand for education which consists of five major steps:

1. forecasting resident population up to age 30 by age and sex groups;
2. analyzing trends and projections based on assumptions about birth rates and migration;
3. analyzing current and past data on enrolment, input

and output from each component, data on teachers, and so forth;

4. determining enrolment ratios and estimating future enrolments on the basis of varying assumptions about these ratios. This might involve targets based on enrolments in more developed countries; and

5. preparing a plan which outlines the needs, costs, etc. for various categories and branches of the system.

The opportunities for developing models and computer simulations of the operation of various levels of the educational system are obvious. Different forecasts can then be readily obtained under various assumptions about trends in population and enrollment with estimates of costs and needed facilities. These probable outcomes under different conditions serve as informational input to decision makers.

Organizing to carry out this type of planning usually takes the form of creating special units which are associated with the upper levels of the decision structure. In various developing countries, the planning unit may be located within the Ministry of Education, or may be closely associated with it in an advisory capacity. The planning divisions or units created in some of the countries which were involved in the Mediterranean Regional Project are prime examples of this type of planning unit. In addition to more or less permanent divisions or commissions, structural provisions can also include ad hoc advisory groups or task forces which develop plans or proposals for specific areas of action. Norway, for example, makes extensive use of ad hoc advisory committees in addition to having a

planning department within the Ministry (OECD, 1970a:12).

In view of the type of planning which is involved, the planners tend to be associated with the upper levels of the decision structure only; there is limited need or opportunity for planning at lower levels, other than preparing to implement plans which are adopted for the system. One further characteristic of planners and planning is that both are likely to be mainly quantitatively oriented.

The outcome of planning activities are forecasts of enrollments and flow statistics which emerge from the manipulation of basic demographic data. The intended effect of the plannning activity is that it should have some influence on educational policies so that the demand can be met and that targets can be achieved. A general impression which emerges from the reports on planning efforts is that the actual results have tended to fall short of the expectations. This is due to various factors which may bear some elaboration.

Planning for educational growth and expansion has met with conceptual, technical, and implementational problems. At the conceptual level lies the difficulty of determining the educational needs of a particular society; it is difficult to specify what educational services, for whom, "need" to be provided. Consequently, it is difficult to indicate how many places *should be* provided in total and within any particular part of the educational system. Parnes (1962:63) points out that planning practices have tended to be based on assumptions about demand and ability which are

frequently not well-founded. He states:

> ...short of educating everyone up to his capabilities (whatever that means!) there is no way of specifying educational needs in any absolute sense. Society needs as much education as it is able and willing to pay for. The decision is inexorably a political one, and the best that planners can do is to indicate the cost implications of alternative policy choices...

In view of the conceptual problem, target setting becomes guesswork albeit at a high level of sophistication in certain instances. Forecasts made on past events have generally proven to be inaccurate because these were based on incomplete knowledge of the factors which need to be taken into account in predicting possible demand for education. This difficulty has been overcome to some extent by the periodic revision of forecasts based on more recent information about trends.

A critical examination of the planning practices which arise in response to the need for expansion and extension reveals that too much emphasis is placed on the creation of *a plan* to the neglect of considering what actually goes on within the educational system. Planning activities are, in general, based on the assumption that the continuation and extension of the system is all that is required; in early planning efforts, little if any attention was given to possibilities for improving educational practices. This raises fear among the critics that planning activities serve only to further expand and entrench an inappropriate system of education.

Perhaps the greatest problem which these planning efforts

encounter is their limited effect on policies. As indicated by Unesco (1970:10):

> There was, and there remains today, a great gap between words and deeds -- between policies proclaimed by ministers attending conferences and the actions taken in their countries; between the methodologies prepared by theoreticians and their application in the actual planning process. The many new educational planning units created by government often remained under-staffed, without effective links with the various regions of the countries concerned, isolated from the mainstream of educational decision-making, and isolated also from such economic and social development planning as existed. Meanwhile, in the absence of overall integrated planning, basic educational priorities architected...

Whether the failure of planning to be more influential in the formation of basic policies is attributable to the quality of the plans, the structures for planning, or the nature of the political system is difficult to determine. Regardless of the explanation, the importance of linkages between planning and policy making are obvious. It would seem to be all too easy to engage in extensive planning activities which have all too little impact on educational practices.

Economic Emphases in Educational Planning

A second major impetus for planning in education comes from the economic functions performed by an educational system. This is not to say that the other functions of education are ignored in the planning which results; however, prime importance is given to

education as a producer of the stock of manpower required for economic development. Obviously, this view of education is closely related to a social situation and to a stage of economic development in which pressures exist for economic expansion. It also elicits planning activities which differ to a significant extent from those involved in the "social demand" approach. Specific approaches to educational planning such as cost-benefit and manpower forecasting are usually discussed within the context of the economics of education. Blaug (1968) is one example of this particular emphasis.

An economic emphasis in educational planning seems to emerge when the lack of technical and professional skills are perceived as bottlenecks to further development or when there are major changes in occupations and employment opportunities. Parnes (1962:8) holds the opinion that manpower planning is required both when there is rapid industrialization (or a push for this) as well as when there are shifts in occupational structure. In either case, education is viewed as an investment in human resources which can be used to stimulate growth or which must be planned in order to make best use of scarce resources. This press for planning is not likely to emerge during those periods of expansion and steady growth when the free market operations are able to produce the personnel available and when the system can tolerate temporary shortages and surpluses of trained manpower. That is, under conditions in which the system has enough flexibility to respond to availability of personnel. Furthermore, it should also be mentioned that planning

to provide skilled manpower is likely to emerge only when the political and economic systens are favorable to it; however, educational planning can still be carried out in the absence of general economic planning (Parnes, 1962:9).

The main objective of this approach to educational planning is to yield an operational plan which will guide educational expansion in a way that will contribute to and be supportive of economic expansion. This implies, in particular, developing a schedule of training requirements at various secondary and technical levels in long term perspective. Parnes (1962:7) states that a further objective of this type of planning is to determine what the optimum level of expenditure should be on education, as opposed to other possible expenditures for economic development:

> That the knowledge and skills embodied in the work force have something to do with its productivity is hardly a revolutionary proposition. What is perhaps novel is the notion that it is possible to ascertain the optimum amounts of education for achieving specified growth targets.

This point of view leads to efforts at determining what the rate of return to society is on investment in education. Parnes (1962:7) states further:

> Most of these efforts have as their ultimate purpose the determination of whether, from a purely economic standpoint, the existing expenditure on education is "correct", and/or of estimating what educational expenditures are required for prospective rates of growth or levels of output.

As might be expected in an economic emphasis, there is a strong hint of the need to make efficient use of resources in the operation of the educational system at the macro level.

Educational planning viewed as an aspect of general economic planning therefore has this double thrust of determining

how the educational system can support economic expansion, and also what expenditures on education should be in comparison with expenditures on other services. The focus of planning activities rests mainly on manpower planning; however, cost-benefit considerations and rate-of-return analyses also have a prominent place. The assumption which lies behind the latter activities is that past and current benefits or returns can be used to guide future decision making.

It is clearly consistent with investment considerations that policy makers should know what benefits can be expected from the expenditure of resources for education. Although this approach is appealing and would appear to be logical, there are some major conceptual and technical problems in identifying benefits. Similarly, it would seem to be highly desirable to know what the rate-of-return to individuals and society is from an investment in education. These planning-related techniques require much more extensive development than is feasible in this paper; detailed consideration is also not warranted in view of the limited effect which these analyses appear to have had on the determination of educational policies. For these reasons, further discussion on the general topic will be restricted mainly to manpower planning.

The essential feature of manpower planning is determining the trained personnel requirements at some future time from projections of total employment and targets for economic growth. The actual techniques involved are not as simple as this

may sound; these range from paper and pencil calculations to highly sophisticated computable models of the educational and economic systems. The major steps in carrying out manpower planning were outlined in a report on the Mediterranean Regional Project Report prepared by OECD (1965:12-13):

1. assume a target for minimum economic growth;
2. develop a projection of total employment (disaggregated);
3. estimate the structure of output in the target year and subsequent employment in terms of occupational structure by sector and branch of industry;
4. estimate manpower requirements by level and type of education for the target year;
5. estimate required increment;
6. express increment in terms of additional enrolments, teachers, pupil places, buildings, equipment, etc.; and
7. calculate costs.

It is evident that such projections must be subjected to continuing revisions in view of information about economic and employment trends. Furthermore, the projections have to be determined well in advance so that appropriate adjustments can be made in educational policies.

The product of these planning activities consists of forecasts of manpower requirements by broad occupational categories and of the enrollments and facilities which will be needed if the requirements are to be met. In order to achieve certain rates of growth in specific programs, the targets for enrollments and

expenditures needed are also included in the plan for educational expansion. In effect, the resultant plan could include several policy alternatives for achieving the desired rates of growth. Ideally, the results of cost-benefit and rates-of-return analyses should be combined with manpower studies in order to yield a more complete picture of the relationship between future economic and educational development. It would appear, however, that such information has seldom if ever been combined into one set of plans.

In those instances in which planning of this type has been carried out it has tended to be associated with specialized planning units at higher ministerial levels. As in the case of planning for educational expansion, units are quantitatively oriented but may tend to be more interdisciplinary; there are obvious possibilities for combining the skills of economists, statisticians, and educators. Although there will likely exist closer links with units responsible for planning economic development, there is limited need for planning at other levels of the educational system.

Planning education for economic development encounters problems similar to those associated with planning for educational expansion as well as some additional ones. For example, there is some difficulty in predicting with any certainty what the occupational structure of a given society will be at some future time; projections usually assume a greater degree of rigidity than actually obtains. As far as determining the optimum level of investment in education is concerned, there still appear

to be opportunities for major conceptual and technical breakthroughs. Woodhall (1970) presents an objective analysis of the practical usefulness of cost-benefit analysis in educational planning indicating its potential contributions as well as its limitations.

Implementation of plans for meeting manpower requirements is seldom carried out to the point which might be expected. It is reported that none of the countries which participated in the OECD-sponsored Mediterranean Regional Project implemented fully their plans for educational developments (OECD, 1970a:13). The manpower forecasting which has been carried out has had an effect,but not that which was intended:

> ...in general, the main effect of the enormous development of manpower forecasting has merely been to convince public opinion that there are shortages of qualified manpower, particularly below the top educational levels and particularly in the areas of science and technology. Despite these findings, however, students have insisted on obtaining more and more education up to the highest levels, and in most countries there has been a marked "swing from science" in upper secondary and higher education (OECD, 1970a:iv).

It has been stated also that "...manpower forecasts have been used to try to influence demand; where they have failed to do so stronger measures have rarely been tried" (OECD, 1970a:v). The manpower projections have also been used as an argument for the allocation of additional resources to education; however, the most appropriate level of allocation has not been determined.

As was true in planning for educational expansion, the main roadblock to effective planning has not been the lack of

techniques but the inability to form an effective link between planning and policy making. The generally negative effects of the experiences can best be summed up as follows:

> ...during the 1960's it has often been difficult to see how educational planning has served its purpose as a rationalizing technique for educational policy. It has been equally difficult to detect what the future consequences and implications are of the many educational decisions taken because they have rarely been accompanied by an analysis of the consequences (OECD, 1970b:5).

To date, planning education with a view towards economic development appears to have been more satisfying to those enamored with planning techniques than to those who would hope to see some effects of planning on developments in the educational system.

Educational Planning and Social Policy

An almost natural outgrowth of the social demand approach in educational planning is the attempt to link educational policies more closely to specific social policies. This emphasis in planning seems to emerge from the observations that the mere expansion of an educational system does not reduce the disparities which exist among the enrollment and achievement rates of different groups as defined by either economic or social criteria. Variations in these participation rates, level of achievement, drop-out rates and so forth have been well documented through numerous studies. These data have contributed to the emphasis on an *equality of opportunity*

theme in education which in many countries is being given greater prominence than the economic functions of education; however, the two are related in that equality of opportunity for schooling is assumed to have some effect on equality in other areas of life as well.

The emphasis is described forcefully in the following quotation:

> The model of the educational systems as an orderly march of students through its various parts, controlled by examination barriers from point to point, is challen ed by the demand for a system based upon a strategy for generating ability among students and for discovering unused intellectual resources in the population which is needed for the advance of the economy and the society (OECD, 1967:9).

The economic significance of education is not ignored; however, education is expected to have an influence on it in a much more indirect way than was proposed in the former section. The social policy toward which educational planning might be directed need not be restricted to equality of opportunity; indeed, the possibilities are as great as the range of social problems. Included in social policies might be such objectives as the reduction of social and economic barriers among groups, the promotion of cultural and linguistic differences; the preservation of particular styles of life, among others. The main assumption being made in disregarding the substantive differences is that the elements of the planning process associated with each would be highly similar. Frequent reference is made to the equality of opportunity policy

since this one seems to be more common to a number of educational systems.

The general planning approach to any particular social policy objective could be highly similar to that proposed for equality of opportunity:

> This objective of democratization of educational participation has become the major social objective underlying educational development programmes, and therefore the time has come to examine the questions: first what is the performance of the school system in relation to this objective; secondly what are the specific effects of policies and measures in education with respect to this objective;... (OECD, 1967:8).

Both of these draw attention to the need for close monitoring of the operation of the system in order to obtain essential information. One set of required data should indicate the extent to which various groups are being served by the present operation of educational programs. With respect to the equality of opportunity objective, this would require information on participation and achievement rates by different social groups. This should be followed by an analysis of the factors, both controllable and uncontrollable, which would seem to explain observed differences; finally, targets could be set for reduced inequalities and policy instruments designed to achieve these targets. The policy instruments might include such special programs as pre-primary education, compensatory programs for children in school, retraining or continuous education for those who have left school, and perhaps increased opportunities at the post-secondary level.

Whatever the specific social objectives concerned, it is evident that planning will need to concern itself to a much greater extent with the substance of programs than do either planning for expansion or planning for economic development. Furthermore, the planning cannot be restricted to the upper levels of the decision structure but must become more dispersed throughout the system. While it is true that major policies with respect to programs can be centrably determined, attention needs to be given also to the actual operationalizing of the program at the local level. In terms of actual planning-related activities, it seems reasonable to propose that the processing and analysis of data should be carried out centrally, and that stimulation of research and program development could also be carried out more centrally. Nevertheless, implementation will require significant degrees of decentralized activity in the adaptation of programs to the needs of particular groups of students. Both local and more centralized evaluation of programs would also seem to be required.

The limited experience with efforts to engage in planning directed toward social objectives makes it difficult to refer to persistent problems. It might be speculated, however, that the reduction of whatever disparities exist is likely to be a slow process due to the complexity of the problems and the close relationship to other social conditions which might remain unchanged. Perhaps the learning which could accompany such planning would contain more effective procedures for monitoring the

system as well as additional policy and program alternatives for achieving objectives. It is also likely that the difficulty of stating some of the social objectives clearly and unambiguously will inhibit the development of effective plans for their achievement.

Planning for Efficiency in Operations

The most recent force for planning has been brought about by rising costs in education and by the competition which education now faces from other social services. It would appear that the demand for services, whether in underdeveloped or developed countries, is far greater than the available resources. The point of view that planning is required because of the current situation is presented clearly in the following statement:

> The increasing complexity of modern life and the public's demand for governments to provide services geared to this life have made the tasks of policy makers, planners and managers in public service increasingly difficult. For an entire government, for a single department, or for an organizational unit within a department, the range of problems, and the chronic shortage of funds to fulfill all demands, calls into question old methods of establishing priorities, designing appropriate programs, managing operations and controlling budgets (Ontario, 1969:1).

There exists limited possibility that education can escape from these forces; indeed, because of the relatively favorable position which education has enjoyed in recent years, it has become one of the first services to be subjected to much closer scrutiny. To some

extent, at least, the success of planners and policy makers to acquire greater allocation of resources in the past is being followed by questions of how those resources are being used.

The pressure for increased efficiency may stem in part from the observed lack of efficiency in the present operation of most educational systems at all levels:

> ...while the output of educational systems whether measured in student numbers or graduates has increased enormously, the main inputs and the money expenditures which measure them have in most countries increased equally rapidly. It is widely believed that this situation cannot continue; that education's share of the public budgets is now too high for it to continue to grow at the same rate. Since the social pressure of student numbers is unlikely to diminish, the emphasis must be more and more on efficiency (OECD, 1970a:6-7).

If these pressures do persist, educational institutions will be faced with the very real challenge of reducing the amount of input per unit of output, or to put it more positively, increasing the amount of output per unit of input. The general task which confronts those engaged in educational planning is to develop means for establishing priorities among goals and for managing programs designed to achieve selected goals in the most efficient manner possible. The evaluation of alternative courses of action, the identification of costly variables, and the development of economies with respect to these variables will also be concomitants of the other general tasks.

These general activities aimed at increased efficiency will encompass a number of more specific planning activities:

1. the attempt to establish realistic goals for various segments of the educational system;

2. the development of indicators to determine the extent to which the goals are being achieved;

3. simulations to assess the probable effects of policy alternatives on selected variables;

4. systems analysis in an effort to identify possibilities for increasing the efficiency of operations;

5. cost-effectiveness studies of alternative means for achieving certain objectives; and

6. more effective linking of budgets to programs through planning-programming-budgeting systems.

Planning activities become in large measure the application of management techniques to the educational system; for example:

> One promising approach that provides a framework for dealing with the problem of comparing output with costs is programme evaluation and other modern management techniques...these techniques can make an invaluable contribution to improved resource allocation by helping to bring about (a) more rigorous formulation of goals; (b) examination of unit costs; (c) comparison of costs and benefits of different programmes (OECD, 1970c:7).

Thus, educational planning becomes less the preparation of global plans and more the preparation of strategic decisions for policy makers.

In addition to an emphasis on management techniques, the efficiency criterion also brings with it the demand for less overlap and duplication in the educational efforts of a society. The pressure arises for coordinative mechanisms which will concern themselves with the distribution of resources in an effective manner. The exact nature of the coordinative mechanism which is

most appropriate under various circumstances has so far received very limited attention.

There would appear to be possibilities for a high degree of centralization in organizational provisions for planning and coordination. While this tendency does exist, there is also evident a need to carry out planning at all levels of the educational system: provincial, district, and school levels. To a greater or lesser degree, the various planning techniques which have been mentioned are applicable at all levels. Whether the planning activities which are possible can be integrated in an effective manner cannot be determined through the observation of any successful efforts to this date.

There are numerous possibilities for major problems in the efforts to implement planning as it has been outlined in this section. The difficulties of defining goals and of developing procedures for the acceptable setting of priorities has already been mentioned. Many of the available management techniques may fall short of expectations when they are applied to education. Finally, there is the challenge of developing the entire planning effort in such a way that it will not stifle initiative and inject rigidities into the educational process.

Planning for Qualitative Improvements

Education now finds itself in a changed and a changing environment. It is these circumstances which are the dominant force behind most proposals for increased attention to planning in education today. Planning is charged with the task of bringing about change within the educational system, with developing programs which are more closely related to the needs of students and society, and with preparing for changes at all levels of operation. Whereas earlier approaches to planning tended to focus on specific objectives such as meeting manpower or demand requirements or increasing efficiency, present conditions force planning to be concerned with a variety of goals: individual, social, economic. The emphasis is not on getting one particular output but on reshaping the entire process and the structures which have been developed.

The so-called qualitative concerns were not entirely absent from earlier planning activities; it has already been indicated that planning for expansion had the limitation of perpetuating the inadequacies of the educational system but perhaps doing this more efficiently. The need for a broadened approach to planning has been emphasized in the following manner:

> ...whereas the hallmark of the last decade of educational development was *quantitative expansion*, the hallmark of the next one must be major selective growth accompanied by greater *adaptation, change and innovation* (Unesco, 1970:23).

Furthermore, the most notable feature of planning becomes:

> ...the fusion of planning and reform, now that planners have become conscious of the importance of such problems as wastage and retardation, the economists of the need to give attention to school curricula if education is to be effectively adapted to the demands of socio-economic developments, and the politician lastly of the necessity of matching the content of curricula to the national enviornment (Unesco, 1970:46).

In summary, the specific objectives of this emphasis in planning is to inject qualitative concerns into quantitative planning, to modify educational experiences and not just the structures in which those take place, and finally to develop alternative futures for education and alternative strategies for moving systems toward the desired states.

In order to accomplish these objectives, former planning techniques need to be improved and new ones added. Included among these will be effective means for developing quantitative and qualitative forecasts, the monitoring of current policies and practices, analyses of the decision process, and greater reliance upon research than in the past. Planning activities also become heavily dependent upon effective methods of distributing information:

> The educational planners of the 1970's will need information systems to meet routine operational needs, to explore alternative long-term strategies and goals prior to strategic decisions about innovations, to monitor and evaluate policy and programmed implementation and to service the flow of information between policy, planning, and administration (OECD, 1970b:9-10).

A number of distinct forms or types of planning are emerging in response to current qualitative concerns: innovation,

technological forecasting, and alternative futures. To the extent that these may describe the dominant features of a planning process, they may be viewed as approaches to planning in much the same way that social demand considerations and manpower projections dominated planning in the past. Because of the significance of these emerging strategies, a brief overview of each is presented below, and a more complete discussion of these follows in Chapter III.

Innovation. The pressure for innovation--the search for alternative methods, procedures, and structures--stems from various operational problems, social conditions, and crisis situations with which educational systems are forced to cope. Innovation as a form of planning consists essentially of problem definition, solution development, and solution testing. Actual innovating is frequently carried out in isolated units; however, some innovations are adopted for entire systems and are imposed upon all units. Pressure for innovation and for doing things differently can lead to change but the change is piecemeal. Nor is it at all certain that the changes which result are the changes which were most needed or that they will be retained. The slow rate of the adoption of innovations and the limited evaluation of the innovations tend to reduce the probability that this is an effective strategy for bringing about major improvements in education.

Technological Forecasting. It is not surprising that a technologically oriented society should raise questions about the possible promise or demands of future technological developments.

Planning relevant aspects of technological forecasting take the form of research to determine possible technological solutions to educational problems as well as the identification of possible educational problems which might stem from technological developments. The specific research techniques are varied and include: trend analysis, delphi studies, scenarios, and cross-impact analysis among others. Usually these studies are carried out in specialized research centers and so far have not been closely related to actual planning.

Alternative Futures. The growing awareness of the problem of time bias in existing planning approaches has resulted in a readiness to consider educational, economic, political, and cultural systems which are quite different from those which we now have. The alternative futures approach may hold the promise of shifting the time bias away from the past and present. Most of the same techniques as have been mentioned in the previous paragraph are used but the focus of activities is broadened to include goal assessment and the consideration of alternatives. Although the integration of alternative futures into educational planning has not yet been achieved, the emphasis has served to accelerate the dissatisfaction with existing planning approaches. Alternative futures holds considerable promise if some of the methodological difficulties can be overcome and if ways can be found to relate such considerations to policy making.

The general concept of planning which is implicit in the

foregoing discussions will necessitate a greatly changed form of organization. In some of the previous approaches to planning the function was carried out by specially created units at the higher administrative levels. Although there is still some need for this in qualitative approaches, the planning function is dispersed throughout all levels of the educational system to a much greater extent than in other approaches. In fact, the problem is not so much how to create units for planning as it is how to institutionalize planning throughout the organization. At the upper levels of the structure the task is to create the means whereby planning can serve the policy making function. The emphasis in planning at this level should be on the development of broad strategies which can be subjected to analysis rather than on development of control mechanisms:

> At the highest level, educational planning should be concerned with working out *global* educational strategies to meet defined targets, within specified goal structures, and taking the constraints of the environment into account. These global strategies should leave enough room and incentives for initiatives at the lower levels of decision-making, and particularly at the level of the school and the institution (OECD, 1970b:11).

Since planning for qualitative improvements is still in the prescriptive stage and limited experience or no experience exists to draw upon, the major problems cannot be identified other than through speculation. However, a number might be anticipated. The first of these is the potential conflict between centralized control mechanisms designed to promote efficiency and decentralized efforts

at innovation and change. It is all too obvious that the demand for efficiency could, if it takes particular forms, inhibit the qualitative improvements which are desired. On the other hand, qualitative improvements which do not also provide for greater efficiency may not be economically feasible. A second potential problem is that of obtaining a sufficient degree of involvement in the planning process so that it can become institutionalized throughout the system. The creation of a desired future state will require the involvement of various groups in the examination of alternatives and in giving support to those policies which would appear to be most suitable for achieving the desired goals. Perhaps the greatest problem is an incompleteness of knowledge of means to achieve the goals which are selected.

Conclusion

The five policy conditions which have been presented in effect set five different types of goals for the planning effort which result in widely differing approaches to the planning activity. In a general way this may serve to indicate why proposals for planning structures and processes should be clearly based in the purposes which planning is intended to serve.

Although the analysis in this paper has been organized as if there were no overlap among the general educational policies and the purposes for planning, it is obvious that reality will not conform to this model. The policies governing education in any setting will probably include elements of all that have been mentioned. When planning is initiated, it will probably be charged with satisfying various purposes: meeting the manpower requirements, overcoming social problems, increasing educational opportunities, increasing efficiency, and bringing about basic changes in education. It is all too clear that no single approach to planning (at least not in terms of the approaches that have been suggested) can serve all of these purposes. The first step in planning appears to be the development of a general strategy for carrying out the activity. This may prove to be a challenging undertaking since it is not at all clear whether the different techniques and structures required are even compatible and consistent with each other. Although this problem has not been discussed in detail in this paper, the possibilities for some difficulties should serve to sensitize the prospective planner to factors which should be considered when designing planning structures and procedures.

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CHAPTER III

QUALITATIVE APPROACHES TO EDUCATIONAL PLANNING

P. Bourgette

This chapter focuses on the fifth dominant emphasis in the educational policies of social and political systems discussed in Chapter II, that of qualitative improvements. This emphasis in planning is being discussed in further detail because it has not received as much attention in the literature as has been given to the four more quantitative approaches discussed in the previous chapter. In addition, the qualitative emphasis in educational planning is very much in vogue at the present time.

This discussion sees planning as falling into two major categories: (1) quantitative approaches which tend to emphasize the same kind of education for greater numbers or with greater efficiency (OECD, 1970a:16), and (2) qualitative approaches which tend to emphasize modifying relationships among the individual, the economy, and the educational system. This quantitative/qualitative dichotomy is not to be confused with the distinction between quantifiable and nonquantifiable variables since both quantitative and qualitative planning may involve each type of variable. The argument here is that certain planning approaches can be called "qualitative" as opposed to "quantitative" because they assume that economic growth and technological progress should be used as

instruments to satisfy social and individual needs related to what might be termed "the quality of life" (OECD, 1970a:9). In short they have a greater tendency than "quantitative" approaches to call into question all existing priorities and goal structures.

A given planning approach differs from others according to:

1. the pressures which led to its emergence;
2. the objectives towards which it is oriented;
3. the kinds of activity on which it tends to focus;
4. the structures which are utilized;
5. the outcomes or products it produces; and
6. the problems encountered in attempting to operationalize it.

It is crucial that practitioners do not attempt to implement planning approaches without being fully aware of the above characteristics of any planning strategy. This discussion analyzes three possible qualitative approaches to planning education -- innovation, technological forecasting, and alternative futures (Ziegler, 1970b:2) -- according to the six criteria listed above. Such an analysis may serve to indicate possibilities for the appropriate application of these approaches to planning. An overview of the discussion is presented in Table 2.

Table 2. Qualitative Approaches to Educational Planning: An Overview

Types of Planning	Situation	Objective of Planning	Focus of Planning Activities	Structures for Planning	Outcomes of Planning	Difficulties and Shortcomings
Innovation	Affluent societies tend to put emphasis on quality of experience for the individual; inability to solve many of our social problems; tendency to define education as a crisis; emphasis on innovation occurs during times of rapid change	To produce alternatives in education which are more appropriate to the times; orderly, incremental change; introduce new structures, ideas, methods or devices	Emphasis on problem definition, development, testing and evaluation	Emphasis is usually on a temporary decentralized management of innovation; however some writers have called for institutionalization of change; in many cases innovations have been forced on the system from the top down	Piecemeal changes in many areas of education since least important changes are easiest they tend to take place most often; provided field of education with a greater readiness to try new methods; however because of short range outlook there has been a high failure rate for new policies	Problems of incentives to get people to change has been overlooked; little evaluation of innovation exists; because we do not understand the process of change unanticipated consequences occur; little attention is paid to non-educational variables
Technological Forecasting	Evolution of specialized institutes; western societies tend to hope that technological developments in the future will solve the problems and crises of the present; greater awareness of the future	To research and formulate alternative technological solutions to the educational problems of the present	Research, exploration and speculation; trend analysis, trend correlations, scenarios, morphological analysis, delphi, relevance trees, logic networks, cross-impact matrix	Activity has been very much restricted to specialized institutes; effective integration with planning function in education is still to be achieved	Introduction of new instructional technologies; development of new research techniques for exploring the future	Tends to overlook political, social and cultural variables of the future; lacks an intricate analysis of futures history
Alternative Futures	Growing awareness of problems of bias in both quantitative and qualitative planning approaches; readiness of society to look at economic, political and cultural systems different from its own	Expand the future by opening up the present to new ideas and new models; relate non-educational factors in the future state of affairs to educational policy making and planning in the present	Multi-dimensional goal assessment and alternative strategy considerations; emphasis on continual process of self-criticism; makes use of tools mentioned under technological forecasting plus all the tools of quantitative planning; tools for analysis of futures his ry must be developed	Activity has been restricted to specialized institutes; theoretically this approach calls for participation by all groups at all levels in the system; effective integration with the planning function in education is still to be achieved	Has provided education with a broader focus to problems; effects on change not yet determined	Lack of analytic and planning tools to facilitate and support a consideration of alternative goals; many methodological weaknesses; our inability to tie it effectively to policy and planning decisions

Innovation

Innovation is a form of planning through which an attempt is made to break with routine and habit by introducing new structures, ideas, methods or devices to solve problems in education. It is extremely difficult to determine in any detail the origins or development of the "innovation in education" movement. Street (1969:4) claims that the study of educational innovation in America flowered after 1950 under the impact of the sudden great upsurge of concern with innovations for national defense and for the "culturally deprived" in the great cities. Andrews and Greenfield (1966:1) trace the origins in education to two sources: rural sociology and social psychological studies.

In rural sociology the central focus has been upon the process of the diffusion of innovations from a research and development source to the practitioner. The innovations studied are usually concrete in form, like a new type of seed or a new drug, and usually are demonstrably superior to that which is to be replaced. Social psychologists, particularly those concerned with group processes, have carried out extensive studies on the role of the change agent in primary groups.

These themes have then become modified under the concept of educational innovation. For example, innovations in education, as compared to those studied in rural sociology, tend more often to be ideas than packaged objects and the adopting unit is seen theoretically as

an organization rather than as an individual. The theories borrowed from social psychology which refer to primary groups have been adapted to take into account the fact that the educational system involves individuals as interacting sub-systems of primary groups which in turn are sub-systems of progressively larger and larger systems. In many respects the innovative approach to planning is a fashion of the times, since change is the most striking characteristic of the world in which we live. Friedman (1967:246), in his conceptual model for the analysis of planning behavior, has hypothesized that innovative planning is especially prevalent in rapidly changing social systems as a method for coping with the problems that arise.

Innovation as a form of planning also reflects the tendency of our culture to view life as a series of problems or crises which have solutions that we have not yet discovered and for which we must keep searching. In the case of innovation theory, the solution to any given crisis is a new structure, device or method that departs from the traditional way of doing things. There are many kinds and degrees of innovation, which arise most often out of some felt sense of the inadequacy or of boredom with existing arrangements:

> An innovation is a break with routine and habit; it disrupts unreflective ways of thinking, feeling, and behaving; it requires a heightened measure of attention and interest in the matters at hand; it forces the participants and especially the creators, to think in fresh ways about familiar subjects, to reconsider old assumptions (Trow, 1967:4).

Examples of innovations are such efforts as the utilization of the new instructional technologies, use of non-professional staff in schools, and community use of schools, among others in a long list.

The major goal of innovation as an approach to educational planning is change; the change to be made is determined by the problem, as are the methods and the organization of the innovation. In any given innovation the focus is usually on a single goal or single set of factors (Ziegler, 1970a:44). In theory, any given innovation may go through five major stages from problem definition to adoption or rejection.

Problem Definition. A perceived dissatisfaction with things as they are leads to the definition of a situation as a "problem" or "crisis". The crisis may take many forms and may arise from any of a number of pressure groups from within or outside of the educational system (Ziegler, 1970a:44).

Development. A new policy, program, device, or structure is invented, discovered, or developed (Ladoucer, 1969:5). Many of the innovations in education are borrowed from other fields.

Testing. The innovation is implemented in the field on a trial basis at the level of the social system to which it is most related. This is usually a developmental process during which both the innovation and the accepting system are altered (Ladoucer, 1969: 5, 7).

Evaluation. The innovation is evaluated in an attempt to determine if the expected changes did take place. The time period

of the trial may vary and the procedure may be more or less scientific.

Adoption or Rejection. After a trial period any given innovation is usually favored in which case it may be extended to other parts of the system or disfavored in which case it may be discontinued (Ladoucer, 1969:6). In actuality, all of the above stages do not always take place in the given order. For example, one of the shortcomings of change in education has been the tendency to overlook a clear definition of the problem. In such a case the innovation becomes adopted for its own sake and then the problem is defined. The influence of forces in the environment of the educational system has been mentioned:

> It is interesting to note, as an example of the influence upon educating systems from institutions and forces previously considered outside the domain of education, that teaching machines and programmed instruction are an outgrowth of the technology of information processing, storage, retrieval, transmission and reduction. These innovations did not emerge from the development of basic new knowledge about how people learn (Ziegler, 1970a:48).

Another such example is that particular systems often import innovations which are suitable to problems elsewhere but do not really apply or are superfluous in their own local situation.

The pressure for innovation in education has produced a great number of important changes for the field of education and has also provided us with some research findings about change; however, a great deal of work in the area of innovation in education remains to be done. The studies which have been done to date have been

unable to add much in the way of theoretical elaboration:

> Great numbers of innovations have been tried but most have been only piecemeal and many have been unstudied. Moreover of those that have received study, project after project has been shown to produce only minimal or transitory academic benefits or positive outcomes that could not be sustained when the experiment was diffused to additional schools (Street, 1969:5).

Most assessment of innovations have been on a micro-level which exclude an analysis of larger social processes and structures. Indiscriminancy in the selection of dependent variables often coupled with a total inattention to measuring independent experimental variables other than "exposure to the program" has told us very little about how change takes place, and why (Street, 1969:5).

Technological Forecasting

Prehoda (1967:4) uses the term "technological forecasting" to refer to the discipline:

> ...which attempts to define the probable future capabilities of science and technology and to provide the information needed to guide technological development into the most efficient and fruitful paths.

It may involve the description or prediction of a foreseeable invention, of specific scientific refinements, or of likely scientific discovery that promises to serve some useful function (Prehoda, 1967:12). As mentioned previously, technological forecasting is not in and of itself a plan; however, it can become an aid in deciding

how resources are allocated or what kinds of commitments are made if it is integrated into the planning structure of an organization.

Much of the pioneering work on futures studies was initiated by European scholars (Dror, 1968:43). However, Erich Jantsch (1967:41) points to the United States as the home of technological forecasting. In 1967 about 600 large and medium sized American firms were carrying out their own technological forecasting on a regular basis and had large amounts of money invested in the area; the European commitment has not been as great. Part of the reason for the interest in technological forecasting in the United States has been the evolution of such specialized institutes as the RAND Corporation, the Hudson Institute, and the Stanford Research Institute and the Syracuse University Research Corporation. Although technological forecasting has been actively developed over the past two decades, it is still in a primitive stage. Approximately twenty different basic approaches have been proposed and are further elaborated by industrial research institutes and systems analysis groups. During the past four years it has developed rapidly as can be seen by the growing number of books, conferences, and the interest in futures studies in the OECD literature (Jantsch, 1969:187).

Ziegler (1970a:51) uses the phrase "technological future" to refer to the literature on the future which speaks to a large range of technological developments. This type of planning model which tends to focus on examples of radical technological developments assumes that technology will solve in the future the

problems and crises of the present. Ziegler points out that it is in the area of educational technology that scientists, technologists, educators, and futurists do not hesitate to project into the long term. In this sense, technological futures tend to resemble innovation: only one critical variable of change, the technological, is seen as of greatest importance.

In general a technological forecast can be described as "a prediction with a level of confidence of a technical achievement in a given time frame with a specified level of support" (Cetron and Bartocha, 1969:479). It is not a plan but rather a tool for planning and decision making. According to Pyke (1970:328) there are two main types of forecasting *which must follow each other in a sequence of steps if they are to serve the planning process.*

The first is *exploratory forecasting* which has the following characteristics:

1. it starts from today's assured basis of knowledge and is oriented towards the future;

2. tries to assess passively the inertia of our social system; and

3. provides reconnaissance data concerning alternative futures.

The second is *normative forecasting* which has the following characteristics:

1. assesses future goals, needs, desires, missions, etc., and works backward to the present;

2. can (by applying spur and focus to research and development) be expected to influence actively the speed of social processes and help the social system overcome inertia; and

3. infer models or patterns based on data resulting from exploratory forecasts.

Pyke (1970:330) then defines four specific types of forecasts which can be utilized within these two general types of forecasts: extrapolative, speculative, explicative, and correlative. He would argue that any consideration of long range options should be preceded by a consideration of questions related to all the four classes of forecasts.

Extrapolative forecasts are projections of technological trends based on the assumption that the future is a logical extension of the past. Three techniques which might be used in extrapolative forecasting are trend analysis, trend correlation, and the scenario. When using trend analysis the forecaster chooses some characteristics of the technology which can be expressed quantitatively and plots thin on a chart. The chart is then examined for trends which can be extrapolated into the future (Martino, 1968:34). Trend correlation is related to trend analysis and depends upon finding a relationship between two or more trends. The scenario can be utilized to outline a logical sequence of events to show how a future environment might evolve, step by step (Prehoda, 1967:30). The primary purpose of this technique is to

explore systematically, branching points of the future which are dependent on critical choices.

Speculative forecasts attempt to describe the range of possible technological responses to anticipated wants, needs, and environmental forces. Two possible techniques which could be used for speculative forecasting are morpholotical analysis and conjecture. Morphological analysis permits a systematic investigation of all possible solutions to a technical problem, using matrix representations in as many dimensions as there are basic parameters (Prehoda, 1967:30). One begins with a general description of the whole and then specifies the detailed issues and themes that fit within the whole (Kahn, 1967:122). Conjecture is a general term which refers to a group of three related techniques: expert opinion, brainstorming,and delphi studies. Expert opinion concerns the use of an individual in some field of technology to make forecasts, while brainstorming involves the use of a panel of experts meeting in a face to face situation for a similar task. The delphi method, a technique developed for the improvement of intuitive thinking, is essentially a refinement of the brainstorming technique. The purpose of the technique is to attempt to sharpen group consensus in a succession of iterative "rounds" (Jantsch, 1967:43). Direct debate is replaced by a carefully designed program of sequential individual interrogations (conducted by questionnaires). After returned questionnaires are analyzed, questions and definitions are reworded and changed in light of the

emerging consensus. By repeating the process of sending out increasingly refined questionnaires, this method allows experts to arrive at a reasonably narrow consensus (Prehoda, 1967:30).

Explicative forecasts infer the technological developments which will be associated with efforts to achieve a specific goal; relevance trees and logic networks are methods which might be used here. The use of a relevance tree involves tracing from goals and objectives of the future along branches to a number of tips representing deficiencies in the existing state of science and technology. Research programs to cope with these deficiencies can then be assigned calculated priorities (Jantsch, 1967:45). Logic networks (such as PERT and CPM) or techniques of scheduling and controlling are an aid to accomplishing projects in an orderly and timely fashion. The major components of a goal or project are set out; activities which require time and resources are defined; the relationship between the activities and events is determined; a graphic network of the events and activities is constructed and time estimates are set for all activities. In CPM one time estimate is made for all activities, while in PERT there is a range of estimates (Andrew and Moir, 1970:104-106).

Those forecasts which attempt to establish an internally consistent relationship between a set of independent forecasts are called *correlative*. The cross-impact matrix is the most important technique which might be used for this type of forecast. It is intended to develop the interrelationships between events and

developments and is an attempt to find the conditional probabilities of forecasted items in a set and a full consideration of the potential interactions among them (Gordon and Hayward, 1968:101).

Pyke (1970:328) concludes that decision makers should be able to develop a planning approach using the above kinds of forecasting to get at questions such as:

1. what are the trends relevant to my needs?;
2. what options have I?;
3. what are the implications of each?; and
4. how do these compare given my requirements?

In the decision making process the decision maker can apply such "selective techniques" as cost-benefit analysis or operations research to determine how resources available to him may be optimized by his choice from among the available alternatives.

As with any planning approach the problem of the organization of technological forecasting is a difficult one. How are effective links between the futures research and the policy machinery to be established? Since we cannot answer this question for more concrete planning approaches the question becomes even more difficult for an area as speculative as futures research. Cetron and Bartocha (1969:479) argue that forecasting can be linked effectively to the planning function of an organization and that this has been done in large corporations. They point out that often when forecasting is done in an organization the work may not be utilized because overall planning objectives are lacking, transfer

personnel capable of relating outputs to organizational needs are lacking, or management staff may not know how to utilize the forecast. The authors suggest that the main reason why technological forecasts tend to be under-utilized both in private industry and government is the following:

> Most planning modes incorporating project selection and resource allocation features make use of R and D appraisal methods that are too complex, require too much data and are too time consuming and too costly to operate, yet often simple practical models are frowned upon and not used either (Cetron and Bartocha, 1969:480).

However, if futures research is to be part of the planning approach in an organization it must be effectively integrated into the organization since forecasts do not mean much unless they influence action. Given the present structure, staffing, and modes of operations of contemporary governments there is little probability that more than lip service will be given to futures. Government policy tends to take the form of "muddling through" or incremental innovation because their activities are shaped by the characteristics of the system (Dror, 1968:41). Dror makes the following recommendations for the organization of futures in government:

1. There should be a whole set of units working on futures dispersed throughout government and indeed throughout the central guidance cluster (set of units will vary from special independent lookout institutes to single futures experts in departmental planning and policy-analysis units).

2. There should be small units dealing with futures within regular governmental organizations.

3. Training of professional manpower is in every respect the most important step in advancing the cause of futures studies in government and in society in general. In addition, attention to futures studies in the training of senior civil servants (pre-entry and post-entry) is essential.

4. Government decision making patterns must be reshaped so as to take the future into account (Dror, 1968:42, 44).

Although one may heartily agree with the above recommendations, there are few reasons to be optimistic that they can be easily implemented since as Dror has stated it:

> The effort required to set up futures units in government and to integrate them with regular government operations demonstrates the validity of my own substitution for Malthus's Law, namely that while the *difficulties of problems increase at a geometric rate, the manpower qualified to deal with these problems develops at an arithmetic rate* (Dror, 1968:43).

According to Ziegler (1970a:17) it is in the area of educational technology that scientists, technologists, educators, and futures generally do not hesitate to project into the long term. However, all of these technological innovations and developments are explored quite free of possible constraints imposed by social, political, and economic modalities in the future. Ziegler sees two elements lacking from technological visions of the future: (1) how do we get from here to there; and (2) what shall be the content and substantive purposes of the material transmitted between the learning and the machine?

> ...it is crucial to also explicate, as systematically and clearly as possible, the host of assumptions and forecasts about man and society in such terms that we are able to move from the realm of vision, exhortation, and criticism to the realm of planning, policy-making, and implementing (Ziegler, 1970b:17).

One positive outcome of technological forecasting is that it provides a stance for discussing present social problems; however, as Ziegler (1970a:17) has pointed out, we tend to assume that technological developments will solve these problems in the future. The problems of methodology in technological forecasting are also very real. As with any new approach to problem solving, the area of futures studies requires the refinement and reliability of its methods, must avoid the temptation of academic narrowness, and above all, the danger of its becoming subservient to particular power groups (Jungk, 1967:3). However, methodological problems should not deter us from technological forecasting or any other type of futures research. Over the long term we must be concerned with "trends" in data rather than with "facts"--we must begin to look at expectable changes in data over a relevant time period. Those who criticize futures research on the basis of its lack of objectivity are missing the crucial issue.

> Most "facts" are not single events, but rather they relate to overall patternings of behavior and relationships. The ways in which we perceive patterns of behavior and relationships are themselves heavily structured by the environment in which we live. Thus, societally perceived "facts" tend to support the existing socio-economic order (McIrvine *et al.*, 1967:16).

Also the pace of change is presently so great that "facts" are

inadequate guides to understanding our environment. Because of this, futures research is one way we can challenge existing patterns of reality; its greater appropriateness for certain kinds of problems probably makes futures research more "objective" (real) than "hard facts".

Alternative Futures

This planning approach will not be considered in as much detail as the above because generally it is a variation of technological forecasting. Ziegler (1970a:54-58) sees the alternative futures approach as being different from the technological forecasting in that it attempts to concentrate on issues, values, and goals and to trace their quantitative and qualitative consequences back to the educational process. As such it represents an attempt to reduce the narrowness of educational planning by a consideration of societal futures.

Alternative futures as a planning model includes two aspects as a minimum: (1) tracing through the future consequences of current and foreseeable decision; and (2) multidimensional goal assessment and alternative strategy consideration (Ziegler, 1970a: 54-58). The purpose of the above activities is to identify the future consequences of present planning and policy decisions, to go beyond traditional extrapolation of numerical trends, and to

examine possible changes in social and political values. It is an attempt to relate non-educational factors in the future to educational policy making and planning in the present. In other words, it is a direct attempt to see that *uncertainty about the future is taken into account explicitly in the planning process* (OECD, 1970c:xiii).

The techniques available for alternative futures are the same as those available for technological forecasting. The tools of quantitative planning such as cost-benefit analysis, operations research, and systems analysis may also be essential components. Newer techniques such as the delphi study and the cross-impact matrix still need a great deal of work, and new tools such as futures history will have to be added (OECD, 1970c:xiii).

The organization of alternative futures research as a planning model is yet to be determined. This approach has not been effectively operationalized because of conceptual and methodological weaknesses. Tied to this is our inability to form an effective link between research and policy (Ziegler, 1970a:21).

Although at this stage of development it is premature to talk about the outcomes of alternative futures research it is not unwarranted to talk about intended outcomes. Alternative futures is seen as a way of providing for a thorough examination of alternative goals and the provision of a forum for their discussion by the public (OECD, 1970c:x). It is hoped by those that have faith in it that the alternative futures approach will have an action component.

Conclusion

Innovation, technological forecasting, and alternative futures can all be labelled qualitative because they are oriented towards satisfying social and individual needs related to the quality of life. At the same time they differ very radically in their origins and in the objectives which they tend to emphasize. Their differing focuses have led to differences in the type of activities and the structures utilized to reach objectives. Finally, outcomes and the problems the practitioner encounters in implementing them varies with each one.

Once again, it is important to recognize the need for the practitioner to define his problem clearly before choosing a planning approach. Since no single approach to planning can serve all purposes, the practitioner must be aware of the characteristics of an approach in order to determine its appropriateness for the situation or problem at hand.

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CHAPTER IV

PROBLEMS IN THE APPLICATION OF PLANNING THEORY

P. Bourgette

> Life, too, is a struggle in which some difficulties may be converted into problems and some problems resolved under techniques produced by knowledge. These problems are principally, but not solely, physical, and the knowledge, scientific.
>
> Beyond these solutions, the explanations we give ourselves, and each other, in clarification of our actions have not been sturdily built with knowledge. Responding to each other, in the political arenas as in the domestic ones, remains little science, mostly art (Nettler, 1970: 209-210).

This chapter is intended primarily as a note to researchers and practitioners. Its purpose is to provide a discussion of two major problems faced by those who study and those who attempt to implement the kinds of planning approaches which have been analyzed. The chapter is divided into two parts.

In Part I we consider the problem of *bias*, or the tendency of any given planning approach to structure the thinking of the practitioner or researcher in one narrow direction, oftentimes the result being that other important variables are overlooked. It is crucial that practitioners and researchers remain sensitive to biases in planning approaches because any one approach to planning can only provide us with a thinking and operational structure to

improve the planning process. In other words, any one planning approach represents an important input because it provides data, trends, and information; however, it is only a part of a total process which involves a consideration of available information, a consideration of policy alternatives, and judgement about which values or variables are most important. Since the problem of judgement remains the prerogative of the practitioner (politicians, administrators, teachers, etc.) or researcher in the planning process, the end product of the use of any approach or technique is open to subjective interpretation. The user must be aware of the strengths and limitations of the information source, model, or technique in order to avoid allowing his decision to be pre-structured.

Part II of this chapter considers the lack of congruence between the planning models described in the literature and actual planning behavior in organizations. As has already been mentioned, a great deal of theoretical literature has been written on the topic of organizational planning in general, and on the topic of educational planning in particular. There appears to be a very wide gap between (1) how the literature describes planning, or suggests how planning might be done; and (2) how the planning function is actually, or realistically could be, carried out in an organization. The reason for this may be twofold. On the one hand the importance of planning as a major organizational activity may not yet be recognized in many organizations. On the other hand, it is likely that much of what is

contained in the literature is somewhat irrelevant as far as organizational needs are concerned; therefore, practitioners tend to ignore the models. The discussion of this problem provides some possible reasons for *the gap*, and it then considers the use of the theoretical literature to practitioners and researchers given its present limited applicability to organizations. This question deserves consideration because all too often practitioners (educators in particular) are accused of being backward when it comes to applying planning approaches in their work while the meaningfulness of what they are expected to operationalize has not been examined.

Biases in Planning Approaches

The purpose of this section is to provide an analysis of certain forms of bias which are explicit or implicit in the approaches to planning presented previously, in order to sensitize researchers and practitioners to the strengths and weaknesses of these planning strategies. The problem of bias in planning approaches has, of course, both advantages and disadvantages. A bias may be viewed as being negative and/or positive depending on such variables as the goals to be accomplished, the suitability of the approach to the task, or the viewer of the situation. The narrow focus of any one approach to planning enables us to get things

done by considering the problem to be solved in a manageable way; therefore the bias is functional. However, at the same time, the alternatives which are excluded by the focus of any one planning approach make the problem of bias dysfunctional.

Theories of "how to plan" are subject to the same types of biases as are other theories or forms of knowledge. These could be categorized as: ideological, definitional, conceptual, and view of the future. In general the "quantitative" approaches to planning tend to differ from the "qualitative" approaches in terms of these four categories of bias. The ideological orientation in the qualitative approaches is a reflection of the tendency of highly industrialized countries to focus attention on individual needs because certain societal (economic) needs have been met for a large part of the population. The qualitative approaches tend to define the problem of educational planning along a greater continuum of variables; they also tend to be less rationalistic and technocratic than the quantitative approaches because they emphasize humanism and action directed at change. In terms of view of the future, the emphasis in the quantitative approach is on an extension or extrapolation of the present, while in the qualitative approach the future is viewed as different from the present in one or more ways. Such differences in biases of various approaches can best be elaborated for each of the categories.

Ideological Bias

Theories of "how to plan" are culturally determined as are all forms of knowledge and as such they tend to reflect major traditions in the views of referent groups in society in general, and in education and other disciplines in particular. For example, the concept of "planning" itself, whatever form it may take, assumes that:

1. man is reasonable and will act in some rational calculus in changing a mode of behavior; and

2. change which is organized and planned is superior to change which is haphazard and incidental.

These types of assumptions are not always universal beliefs (see Ross, 1970:217-277) but rather may vary by individual or group according to time, place, race, religion, political beliefs, or world view.

Another general ideological bias which tends to appear in planning theories and approaches is total acceptance of present predominant economic, political, and value systems. In other words, certain pressure groups in society may see "planning" or "certain kinds of planning" as dysfunctional for them because it is perceived as an activity which extends the power of other groups while reducing theirs. Practitioners must be sensitive to these types of conflict in order to realize that *planning or any one planning approach is not neutral and what is beneficial to one*

reference or pressure group may discriminate against another.

If one were to look at the ideological biases implicit or explicit in the quantitative approaches mentioned in Chapter II in contrast with the same type of biases contained in the qualitative approaches mentioned in Chapter III some general statements can be made. The quantitative approaches tend to emphasize societal needs over those of the individual, while the ideological orientation in those approaches which we have chosen to label qualitative, reflect the tendency of highly industrialized countries to focus attention on individual needs because certain societal needs have been met for a large part of the population.

Although the ideological biases in the four quantiative approaches to planning (educational expansion, economic emphases, social policy and efficiency in operations) tend to emphasize societal needs, they do differ in the kinds of assumptions on which they are based. The educational expansion approach to planning is based on the assumption that the educational needs of a particular society can be determined, and when determined can be projected to forecast the needs of future societies. By the very nature of this approach growth is seen as an extension in number of what went before--more pupils, more desks, more buildings, more teachers, and more administrators. Expansion approaches to planning, therefore, for the most part, tend to be establishment oriented; they result in preserving the status quo rather than questioning the process or the products of the educational system.

Economic emphases in educational planning again put societal needs before those of the individual (or equate them) and assume that the economic development of the country is of prime importance. The ideology implicit in this approach to educational planning should not be overlooked since it stresses that the educational system should serve the economy of the country. A macro emphasis of this kind tends to overlook the needs and concerns of people and is definitely not a change-oriented approach to planning education. Ideologically, the social policy approach as described in Chapter II shows a greater recognition of the needs of the individual but the emphasis on societal gain remains. Again a basic and questionable assumption is contained in this approach as in the above two; the theory implicitly assumes that education can contribute to the economic development of a country.

The efficiency approach to educational planning may have a different ideological bias depending on how the approach is operationalized. An emphasis on program budgeting as an accounting system would give an emphasis on efficiency criteria in determining what policy decisions are made; however, an emphasis on goal setting and evaluation as part of a PPBES process might very well lead to a questioning and revising of present practices in education. As with the three approaches mentioned above, this approach represents a belief in man's rationality, a belief in ordered change, and total acceptance of the present predominant economic, political, and value systems.

The ideological biases contained in the qualitative approaches to planning discussed in Chapter III are difficult for us to understand in detail since we do not have the advantage of looking at them in a historical perspective. In many respects the innovative approach to planning is a fashion of the times, since change is the most striking characteristic of our circumstances. Since innovations may take so many forms it is difficult to sum up their ideological orientation. Because of the limited situational approach of any given innovation, as a planning input innovation tends to represent an acceptance of the predominant economic, political, and value system. Often, however, an innovation is able to present a challenge to practices, techniques, or norms as they apply in the educational field and thereby question myths that tend to become accepted as fact. In that very small sense, then, innovation can at times by "anti-establishment".

The ideological biases implicit in technological forecasting as an input to the planning process reflect the pervasiveness of science and technology in our time and culture. Due to our inability to solve our social problems in the present we have a tendency to hope that technology will solve them in the future. Dror (1968:40) reminds us that interest in the future is nothing new in the area of public decision making. He points out that what is new concerning future dimensions of public decision making are the following:

1. the increased necessity of taking more account of the

future;

2. the increasing possibility of so doing; and
3. the increasing demand to meet future needs (Dror, 1968:40).

Dror ties the development of futures as a form of government planning to contemporary ideologies about "the great society" (Gross, 1968) and "the active society" (Etzioni, 1968). In other words, our concern for focusing on the future in an organized way is due to increased public expectations about how things should be combined with a belief in organized public activity.

Due to the broader focus of alternative futures as an approach to planning, it has the potential to be freer than innovation and technological forecasting from ideological biases. The alternative futures approach was designed to overcome some of the cultural, political, and economic biases present in other planning theories and as such it is an excellent planning input. However, because of its unstructured approach it requires special types of personnel and at present few such trained persons are available.

Definitional Bias

This type of bias refers to the way in which a planning theory or approach defines the problem to be solved. For example, some approaches to planning education see the problem as being one

which involves only the discipline of education while others tend to be interdisciplinary. Some approaches tend to have certain goals implicit in what they advocate in terms of action while others contain goal seeking as a part of the process or technique. It is important for the practitioner to remember that the way a question is asked may tend to structure the answer. In addition, because the selection of any given approach depends upon assumptions about the nature of the problem, the practitioner should try to be critical of these assumptions in order to avoid making an inappropriate choice.

As would be expected from the discussion of ideological biases, the quantitative approaches tend to define the problem to be solved more narrowly than do the qualitative approaches. The first quantitative approach, educational expansion, defines the problem to be solved most narrowly. The planning task is to provide more facilities and personnel for a greater number of pupils. The goals to be reached are implicit in the approach; goal seeking is not a part of the approach. As was suggested in Chapter II, this narrowness of approach to planning causes it to further expand and entrench an already outmoded system of education.

In the economic emphases approach to educational planning the problem is seen as providing persons for the labor market. Because of its narrow approach to planning, it is not likely to be relevant in situations of expansion and steady growth where the free market operations are able to produce needed personnel and where the system can tolerate temporary shortages and surpluses of labor.

The social policy approach to planning again tends to be narrow; however, it does consider a greater range of problems than the two strategies discussed above. Therefore, researchers and practitioners are more likely to use an interdisciplinary approach to problem solving. At the same time a great many variables are excluded.

The definitional bias of the efficiency in operations emphasis depends upon which technique is used and how it is operationalized. For example, if PPBES is used as an information system or management tool, planning takes on a very strong administrative bias; however, if goal seeking and evaluation are stressed, the planning is likely to be more change oriented.

Looking at the qualitative approaches discussed in Chapter III, innovation as it has typically been utilized tends to define the problem to be solved very narrowly. Although it is a change oriented process for problem solving, in most cases the range of alternatives considered is very narrow. As with innovation, there is a great definitional bias implicit in technological forecasting. The solution to educational problems tends to be seen as some new technology without regard to how this might come about. However, as a part of any total planning process, it is a crucial input since technological discoveries and developments tend to shape our lives a great deal. The alternative futures approach tends to have the least definitional bias because it sees the problem to be solved as multi-faceted and calls for an interdisciplinary approach.

Conceptual Bias

This type of bias refers to the fact that our preference for any one theoretical approach to planning lies in whether we choose to see the educational system as people processes, technical processes, or a process centered around things and materials (Chin, 1967:53).

Bennis has pointed out four types of biases which may strengthen or weaken (depending on the situation) attempts to "apply" knowledge in the practical situation (see Chin, 1967:42). They are:

1. the *rationalistic bias* or the assumption that knowledge about something leads automatically to intelligent action;

2. the *technocratic bias* which ignores people and their concerns;

3. the *individualistic bias* or the lack of appreciation of situations and structures; and

4. the *insight bias*, leading to no action.

Every given planning approach, whether qualitative or quantitative, is infused with certain value judgements which tend to become embedded into "technical concepts". For example, terms such as equal opportunity, individualized learning, humanization, and innovation are seemingly technical concepts in education, *but they in fact bury out of sight a host of value judgements.* Practitioners and researchers

must be wary when considering an approach to planning because strategies depend on diagnosis of the problem and the related concepts. As Chin (1967:54) has warned, the *terms themselves* tend to preclude a full examination of possible alternatives to conceptualizing any given policy problem or possible solution. Approaches to planning should be chosen cautiously according to their suitability for the task and theoretical fads, theoretical bandwagons, and empty neologisms should be avoided.

Among the quantitative techniques discussed in Chapter II, all tend to be highly rationalistic in that each assumes that some form of knowledge will affect the educational system in the way the theoretical approach says it should. As was pointed out previously, we have very little evidence that this has happened. The technocratic bias is also very much present in the quantitative approaches. The social policy planning strategy suffers least from this; however, it could not be seen as non-technocratic as an innovation which involved the establishment of a free school. All the quantitative approaches also have a strong individualistic bias because of their inability to link policy to practice. As such, then, the insight bias or the problem of no action has also been prevalent in the past.

In reviewing the qualitative planning strategies, the conceptual strength of innovation as a planning input is its action orientation. In most cases innovative projects emphasize implementation and do not suffer to a great extent from what Bennis

refers to as the rationalistic bias or the insight bias. Depending on the nature of the innovation, any given project may or may not have a technocratic bias. The introduction of mechanical and technical innovations would be more likely to ignore the concern of people than would a free school experiment. The greatest problem with most innovative projects is the individualistic bias; in many cases, situational and structural variables are overlooked, because both problem assessment and evaluation take place on a micro as opposed to a macro level.

Since, to date, technological forecasting has had a narrow research orientation and no action orientation it tends to rank high in terms of all categories of the typology of bias developed by Bennis. A weakness, then, of such an approach is that it tends to fall into the insight bias category defined by Bennis (Chin, 1967: 42) as, leading to no action and showing no manipulability of the situation, the rationalistic bias defined as the assumption that knowledge about something will automatically lead to intelligent action, and the technocratic bias category which ignores people and their concerns. Also technological forecasting does not, as a matter of course, take into account the problem and policy in a complex pluralistic web of governance in the education system. It tends to fail to ask such crucial questions as what

> ...socio-economic, political, and cultural events and trends are assumed to occur in the next twenty to thirty years which will comprise a societal environment conducive to proposals of this kind? (Ziegler, 1970a:53).

As such, then, it also suffers from a strong individualistic bias.

The alternative futures approach contains fewer conceptual biases than any other strategy which has been discussed. It tends to overcome the technocratic bias by concerning itself with the fact that planning takes place within a complicated set of multiple interdependencies among a variety of institutions, associations, and clients (Ziegler, 1970a:36); however, it has not yet overcome to the present, the insight bias or the rationalistic bias. This will not be done until such time as we know how to link this form of planning effectively to policy.

View of the Future

This type of bias refers to whether or not a planning approach tends to perceive the future as:

1. the same as the present;
2. an extrapolation of the present;
3. different from the present, but varying in only one major way; or
4. as a range of alternatives to be effected depending on which choices are made.

The type of time horizon which is suitable to a problem or policy should be considered carefully before a planning approach or technique is chosen by practitioners. As has been suggested:

> There are no hard and fast rules for determining this time-horizon. Most educational planning is short term, yet those for whom we plan will be living out their lives at a time when we will be dead. Any time dimension is feasible so long as planning is not construed as an attempt to control the future (Ziegler, 1970b:25).

In general, the quantitative approaches discussed in Chapter II perceive the future as either the same as the present or an extrapolation of it. Educational expansion involves extrapolation of present enrollments and other variables in order that systems may anticipate the demand for education at future points in time. Economic emphases in educational planning tend to vary in the way they view the future. For example, manpower projections assume that the future is an extrapolation of the present while cost-benefit analysis or rate-of-return studies focus on the future as being no different from the present. Although the emphasis in the social policy approach to planning is on changing certain aspects of the educational system,the time perspective of the approach is very much tied to the present. The time perspective of a given efficiency approach to planning will vary with the technique used. For example, PERT charts and other management tools view the future as being no different from the present. On the other hand, techniques such as PPBES could view the future as a range of alternatives to be effected depending on which choices are made if these techniques involve effective goal seeking procedures.

The qualitative approaches to planning tend to view the present as being different from the future in one or more ways.

Ziegler (1970a:46) points out that the chief characteristic of the innovative model of planning is that

> in at least one, *but usually no more than one*, substantial way, the educational future is perceived as clearly different from the educational past.

The definition of the future implicit in the policy plans or programs is uni-dimensional and is usually seen as an escape from past and present failures. *This crisis-generated activity leads to piecemeal changes or incremental shifts in one component of the educating system.* Therefore, as a total planning model, innovation as it is presently carried out is not enough for the development of education...this model, views educational change in terms of a single, alternative future which derives from dissatisfaction with the present rather than a consideration of possible future alternatives. As pointed out by Ziegler (1970a:12), technological forecasting tends, as a planning approach, to hold only one view of the future as in the innovative approach; however, the time dimension is usually longer. He suggests that such an approach usually overlooks the way in which the educating system must change in order to utilize technologically prescribed solutions to social problems, and what consequences these technologies might have on the content and objectives of education (Ziegler, 1970a:21).

The most attractive feature of the alternative futures approach as a planning model is the way in which it views the future. It sees the future of education as a range of alternative possibilities. It has the capacity to look at economic and

political ideologies which are different from those which presently exist. In other words, it may be possible through the use of alternative futures research which has goal seeking processes, to avoid tying our futures too closely to predominant value structures and thereby avoid one of the major problems of other planning approaches which is a built-in bias in the implicit conception of ideal goals (Eide, 1970:25).

Summary

Because knowledge is culture-bound, no prescriptive planning approach is neutral in the same way that no form of information, data, or knowledge could ever be neutral. The "quantitative" approaches to planning discussed in Chapter II differ from the "qualitative" approaches discussed in Chapter III in terms of the types of ideological, definitional, and conceptual biases explicit or implicit in their assumptions. They also differ in the way they view the future. In general the quantitative approaches are more likely than the qualitative approaches to be based on ideologies which support the existing cultural, political, and economic system. They tend to define educational planning more narrowly and are more likely to suffer from the four conceptual biases which Chin has outlined. The quantitative approaches tend to view the future as the same as the present, or an extrapolation

of it while the qualitative approaches see the future as differing from the present in one or more ways.

However, neither the planning approaches which can be labelled "quantitative" nor those which can be labelled "qualitative" are entirely similar in the biases implicit or explicit in them. For example, educational expansion could be said to define the problem of educational planning more narrowly than economic emphases, social policy, or efficiency in operations. Social policy as a planning approach contains the least conceptual bias since it does not tend to be as highly rationalistic or technocratic as the other quantitative approaches. The types of bias which occur in efficiency of operations depend on which technique is used. If PPBES is the chosen technique then the type of bias which predominates will depend on whether it is emphasized as a goal seeking and evaluation process, a management tool, or an accounting system.

The qualitative planning approaches also differ among themselves in the kinds of biases which are predominant. Alternative futures research has less ideological bias than innovation or technological forecasting, therefore making it a crucial part of the planning process. It also has the lowest individualistic bias because it can take macro political, economic, and cultural situations and structures into consideration. However, because we have not yet adequately defined how to link this approach to action *in the present*, it still suffers from a high degree of rationalistic and insight bias. Technological forecasting tends to have more limited

use than either alternative futures or innovation for the planning process because of its narrow focus. Although it ranks high on all the forms of bias, however, it is still essential to enable us to forecast the discovery of and development of technology. Innovation because of its action component, is a way of tying knowledge to action; however, because of its narrow problem definition capabilities it should never be seen as a total planning or change model.

When choosing a planning approach, the researcher or practitioner should have a clear picture of the planning problem. The planning approach chosen should be suitable to the problem and the user should be fully aware of the assumptions explicit or implicit in a given approach so he can know its strengths and weaknesses. Since planning is a process made up of many approaches to problem solving and change which takes place at all levels of the educational system, the role of the practitioner (politicians, administrators, teachers, etc.) as decision maker is crucial. Because theories and techniques are not neutral they should never be allowed to dictate needs.

Theory-Practice Gap

A second major problem the researcher and practitioner might face in attempting to utilize the theoretical literature on planning is the gap between how the literature describes planning,

or suggests planning might be done, and how the planning function is actually, or realistically could be, carried out in an organization. The purpose of this section is to describe briefly the lack of congruence between the planning literature and planning behavior in organizations,and to discuss some possible reasons for its existence. We then consider the use of the theoretical literature to practitioners given its present limited applicability to organizations.

The problem of incongruence between theoretical planning literature and planning behavior in organizations can be divided into two major categories: (1) *the problem of abstractedness; and* (2) the *problem of assuming unlimited rationality*. The first category refers to the tendency of many of the theoretical descriptions of planning to talk about planning as a uni-dimensional organizational function which is readily distinguishable from other organizational functions and carried out by a special breed of man called "planner". The category of assuming unlimited rationality refers to the tendency of much of the literature to ignore that man's rationality has limits, thereby ignoring our limited knowledge in solving problems, and limits on the availability of manpower and resources.

The Problem of Abstractedness

One of the major problems for educational practitioners and researchers in attempting to utilize literature about planning

in their work is the vague and abstract way in which the term "planning" is defined and described. In our efforts to form unified concepts of planning we begin to think of planning as a uni-dimensional rather than a multi-dimensional concept. Such highly abstracted concepts tell us little about the range of problems an organization may have to solve, about the actors trying to solve them, or about what solutions may be involved. Much of the planning literature ignores the fact that the characteristics of planning in a given setting will be somewhat determined by other organizational variables such as the goal or policy to be implemented, the task to be completed, organizational needs and resources, and the power structure of the organization. These same variations will appear when one compares different organizations with each other. Within a school system one would expect the planning function at the institutional level to be different from that of central office or a provincial department of education. One would expect the planning activities of a provincial department responsible for budgeting to be different from those of an agency responsible for advising a provincial cabinet on decisions about policy. These distinctions tend to be overlooked in many of the theoretical discussions of planning and thus limit their usefulness. *It does not make a great deal of sense to talk about techniques, structures, or organization for planning without specifying what kind of planning is being considered, what purpose it is to serve, and what resources are realistically available.*

A second problem of ambiguity apparent in theoretical approaches to planning is the tendency of many writers to talk about planning as a distinct organizational activity as separate from policy making, administration, decision making, and research. For example, an OECD (1970) paper on the concept of educational planning sees planning as being one dimension of the decision making process along with administration and policy. In this one case the function of *planning* is defined as the development of innovative decisions and decisions programs. The function of *administration* is defined as making routine decisions corresponding to relative "fixed" programs, which means the implementation of innovative decisions. *Policy* is defined as the function responsible for seeing that innovative decisions are made and internalized, to guarantee that the administration accepts decision programs, and to guarantee that the reference system accepts innovative and routine decisions which influence the reference system (OECD, 1970:11-12). However, as Eide (1964:72) has suggested, definitions of these functions based on logical deductions may be of little use when one is looking at actual administrative structures because the boundary lines between the functions will be defined according to the situation in which the organization operates. When one looks at educational organizations it is not always possible to separate these functions and to label them. Theoretical planning approaches which ignore these problems would be of limited use to practitioners.

Related to this problem is the tendency of much of the

literature on planning to talk about "the planner" as a breed apart from other persons in organizations; however, planning is both a political and a technical function and many persons working in an organization play the role of planner as a part of their work. It is impossible to describe the planning function meaningfully as something which is done only by "planners". It is most important that practitioners avoid the pitfall of thinking of organizational planning as an activity which is done only by "outside experts" or as an activity which has only technical aspects. Depending on the focus of a planning activity, it may be a political, technical, research, budget, or policy function, or some combination of elements, and it may be carried out by a "technical expert", teacher, student, parent, or politician, depending on the nature of the planning activity.

A third area where the theoretical approaches found in the literature tend to overgeneralize is in defining what "good" or "effective" planning is without regard to whose point of view is being taken. For example, there appears to be a strong administrative bias in many articles and books which conceive of "good planning" as that which enables the expert advice of technicians and professionals to be passed on to policy makers and practitioners. In contrast, a practitioner may see "good planning" as that which allows persons at higher levels in the organizational hierarchy to realize and utilize the knowledge of persons lower down in the hierarchy and vice versa. This distinction has important implications for any attempts to

formalize the planning function in an organization. Most planning literature, then, tends to look at organizations from the top of the hierarchy downwards; this approach is not always useful to the practitioner.

The Problem of Assuming Unlimited Rationality

The tendency of literature on planning, decision making, and policy to assume unlimited rationality on the part of man has been discussed by Lindblom (1959). He holds that administrators tend to use the method of successive approximations (continually building out from the current situation, step-by-step and by small degrees) rather than the rational-comprehensive method which is described in much of the planning literature. He claims that the literatures of decision making, policy formulation, planning,and public administration assume

> ...intellectual capacities and sources of information that men simply do not possess, and it is even more absurd as an approach to policy when the time and money that can be allocated to a policy problem is limited, as is always the case (Lindblom, 1959:80).

According to Lindblom, these kinds of gaps between theory and practice often lead administrators to feel that the outside expert or problem solver is not helpful, why experts in turn often urge more theory on the administrator.

And it explains why an administrator often feels more

> confident when "flying by the seat of his pants" than when following the advice of theorists. Theorists often ask the administrator to go the long way around to the solution of his problems, in effect ask him to follow the best canons of the scientific method, when the administrator knows the best available theory will work less well than more modest incremental comparisons (Lindblom, 1959:87).

A great deal of the literature falls into the above category making it insufficiently precise for application to a policy process that moves through small changes.

For example, many theoretical approaches to planning point out that in order for planning to be effective it must be linked to policy. One can hardly argue that such a state would not be desirable. However, how can it be achieved? As Dror has concluded from a survey of the literature on policy formulation:

> [a]t best, the empiric study of policy making is just now emerging. A significant and increasing amount of work is being done on minor decisions and secondary policies, but most of it suffers from its lack of comprehensive theoretical frameworks. Very little empiric work is being done on the macrosystem of public policy making (Dror, 1968:73).

Another common prescription of planning is that it be linked to the decision making process of an organization; however, as Kimbrough (1964) has pointed out, we really do not have much of an understanding of how decisions are made in organizations. Although we may be able to draw models of the formal system and link planning and decision making with an arrow, attempts to apply incentives in order to affect the informal system in an organization may not have the consequences which were intended or anticipated.

As a final example, one could consider the problem of the link between planning and change. Phrases such as "institutionalized innovation" and "change-oriented" are often used to describe planning in the literature. However, theories which call for such links between planning and change are ignoring the reality of the political arena. Schooler (1969) has stated that behavioral technologies or those that emerge from the political, social, psychological, sociological, and economic sciences will meet with conflict, opposition, and decreased likelihood of change more often than physical technologies. The reason given for this is that much behavioral technology evokes the possibility of redistribution or regulation:

> By implying new life styles or patterns of behavior it may...threaten an end to self-regulation or groups and individuals' control over their own affairs. When policy or technology is perceived to have these "redistributive" and "regulative" impacts or implications, then that policy is likely to engender conflict and opposition. Such conflict may pit group against group or group against government, but in either case a politically sensitive and risky situation results. Actors come to see the "game" as zero sum, with some groups gaining at others' expenses or being prohibited from acting in their own preferred manner (Schooler, 1959:11).

This has definite implications for what we can expect to be achieved by planning. For example, as Schooler (1959:13) has pointed out, new behavioral technologies such as PPBES and systems analysis would meet with resistance because these technologies lend political advantages to some groups in the bureaucracy and introduce new criteria and values to be considered in policy making. Such realities have too often been overlooked in the theoretical approaches

to planning in the literature, making their usefulness to practitioners doubtful.

In part, the above gaps between theories of planning and actual planning behavior can be traced to the fact that very little work in this area has been done to discover theory from data which has been systematically obtained and analyzed in social research. Glaser and Strauss (1967:3) maintain that we can have more certainty that theories will "fit and work" if they are arrived at through the method they describe as "discovering grounded theory". By this they mean that theory should be able to fit the situation being researched and work when put into use. Categories must be applicable to the data under study and must be meaningfully relevant to the behavior under study. Concepts should come from the data and their relationship systematically worked out in relation to the data. However, in the field of planning, with one or two exceptions (see Lindblom, 1959) theories are of the logico-deductive type which means that their authors may or may not have been concerned with their fit in the practical situation. In addition, very few of these logico-deductive theories have been tested for verification through empirical studies.

Closely related to the problem of a lack of grounded

theory in the area of planning is the problem of an overemphasis on "prescriptive" theories of planning. If one divides the literature on planning which might be termed conceptual or theoretical into the categories *prescriptove*, *analytical*, and *empirical*, the bulk of material falls into the prescriptive category. The term *prescriptive* refers to those theoretical or conceptual writings about planning which tell the reader "how to plan". Their purpose is to give the practitioner advice and these writings can be readily identified by the number of should clauses contained in them. For the most part the advice given is based on speculation. Examples of this type of theoretical description are not difficult to find in the literature (OECD, 1970; Ackoff, 1970; and Le Breton and Henning, 1961).

The term *analytical* refers to those conceptual or theoretical approaches to planning which are used to understand the planning process by describing it in metaphorical terms, or terms which are readily accepted in another discipline. One could also use the terms "model for" or "analogue model" to describe this category of material on planning. Examples of this type are provided by Friedmann (1967) and Dror (1963). Those materials which take a systems approach to planning also fall into this category.

Lastly, the term *empirical* is being used to describe those theories or conceptual materials which have been built out of a study of the real world by data collection in some form, or verified by the collection of data. The works of Lindblom (1959), Eide (1970),

and Dyck and Klimek (1970) fall into this category.

It is not difficult to find an abundance of materials in the prescriptive category; however, there are fewer descriptions which fall into the analytical category and fewer still which fall into the empirical category. Because these many prescriptive or "how to plan" theories have not been grounded in data nor verified by empirical testing, they constitute what Nettler (1970:176) refers to as "ideologies" or "myths":

> Myths may tell coherent stories as they order the world morally, and they may be judged satisfying because of this, but they may not be used as maps of reality without high cost.

According to Nettler, ideological explainways rest on statements false, unproved, or unprovable through reference to empirical rules. Since the bulk of planning literature is merely prescriptive and not based on adequate empirical warrant, there is no evidence that following the rules of the prescriptive planning approaches will achieve intended results. *In other words, we will have to accept the fact that at present planning is mostly art and very little science.*

Summary

Above we have mentioned the problem of abstractedness, the assumption of unlimited rationality, and the lack of empirical

warrant evident in much of the theoretical literature on planning. One must then ask whether it has any use at all to practitioners.

The author does not doubt that the consideration of theories and of theory development is important both to researchers and practitioners working in any field. According to Kaplan (1964:294):

> ...theory is a way of allowing us more effectively to bring to bear our repertoire of habits, and even more important, to modify habits or discard them altogether, replacing them by new ones as the situation demands.

The value of theories lies not only in the answers they give but also in the new questions they raise. They help us to organize thoughts, clarify our thoughts to others, and enable us to make economical summaries of our findings. At the same time in the area of planning, we must find some way to relate the prescriptive theories of planning to practice if practitioners are ever to be able to operationalize them. It is more likely that we will have prescriptive theories which can be operationalized and evaluated by practitioners only if these theories are developed out of data. The importance of relating research to the practical situation has been argued strongly by Kaplan (1964:399):

> For behavioral sciences [the] advantages are especially great, counteracting the tendency to empty verbalization characteristic of some sociologies, for example, or the self contained formalism of certain economic theories. The practical problem may bias an investigation, if this is carried out only to provide justification for a policy prejudged to be the best. But the determination to exclude from an investigation the data and hypotheses pertaining to practical conditions and consequences may be just as much an expression of bias.

Therefore, it is important that agencies or organizations

which attempt planning, record their experience for purposes of verification of theoretical approaches.

The Middle Road

In this chapter we have reviewed two major problems faced by researchers and practitioners in the implementation of planning literature and planning theory in their work. We have reviewed the problem of bias in planning approaches and its tendency to structure the questions and answers of the user. Secondly, we have looked at the gap between how planning literature says planning could or should be done, and how it is actually or realistically can be carried out.

There is no doubt that planning theories are useful to the practitioner in providing thinking and operational structures, and raising questions about present practices. However, they should be utilized with full knowledge of their strengths and limitations. Perhaps the most important variable in successful planning is the intuition and insights of the practitioner. It is the politician, administrator, teacher, or student who must decide which planning approach, structure, or technique they will experiment with. As Eide (1964:80) has summarized:

> Basically the introduction of educational planning is a political action, and the organizational solution should reflect adequately existing policy intentions. However,

> bearing in mind the essential importance of the planning function in a modern society, it should not be forgotten that favorable attitudes towards planning in other parts of the administrative system constitute in the long run a basic condition for the effective performance of this function, and this should be taken into account when considering the question of organizational forms. To find the right solution to this question in a given situation, must still, however, be regarded as a problem to be referred to the fine art of political administration.

While persons working in the field may find prescriptive theories of planning helpful, great miracles should not be expected since there is little evidence that they can solve the "problems of education".

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CHAPTER V

CURRICULUM PLANNING AT A PROVINCIAL LEVEL

S. Cowley

The purpose of the exploratory investigation upon which this chapter is based was to gather information about planning activities in the Alberta Department of Education. Most of the information was obtained through a series of unstructured interviews conducted during the first few months of 1971 with various departmental officials. It had been hoped that such information would lead to a tentative assessment of the kinds of planning problems which confront education in the province, and of the adequacy of current approaches to planning. The hope was realized only in part because the information obtained proved to be somewhat less comprehensive in scope and less rich in content than had been anticipated. Nevertheless, some useful insights were gained into the complexity of planning educational development.

Research Problem and Method

This report describes, in somewhat general terms, the present organization and operating procedures of the two most important (in the author's opinion) sub-units of the Division

of Instruction.[1] These two sub-units are the Curriculum Branch and the Field Services Branch. The focus of the description is upon the planning and evaluation of curriculum, and upon the principles which appear to guide these activities. Secondary attention is given to describing some of the factors which appear to have led to the selection of these principles.

The study was restricted to the Division of Instruction primarily because of time limitations. Given the absence of previous, similar studies of the department, considerable time was required to acquire a working knowledge of the organization. It should be noted that the study was not based initially on any particular interest in curriculum planning or the Curriculum Branch. Although in retrospect the delimitation seems to be most appropriate, prime interest lay in the study of planning activities and not in any particular substantive area. Those sections of the Division of Instruction which are concerned with curriculum were selected because they were perceived to be especially suitable for investigation. It is hoped that some of the insights gained here might also be applicable to other substantive areas.

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[1] By "operating Procedures" is also meant "policy" *as understood by the author*. For example, verbatim statements of departmental policy are quoted occasionally in this report, as these appear in official documents. In many cases it has not, however, been possible to append to such statements a description of the verbal or organizational environment in which they are found, which would insure that an external observer would understand them in precisely the same way as they are understood in the central office.

Two organization charts have been included. The purpose of Figure 1, "The Department of Education", is simply to provide the reader with an easily comprehensible description of the basic structure of the department. The purpose of Figure 2, "Organizational Units Included in the Study", is to present the total set of relatively formal relationships within the department, and between the department and other organizations *which are relevant to the analysis*. The latter qualification is important; although some of the activities of the Field Services Branch were examined in the study, not *all* of what Field Services does was considered relevant, nor were all of its relationships with other branches considered relevant, to the main focus of the investigation. This is also true, though to a lesser degree, of the Curriculum Branch.

The underlying conceptual emphasis of the study shifted somewhat from the time that it was first conceived to the time the analysis of interview data was completed. Since the study was designed to be exploratory, it might be more accurate to say that a conceptual emphasis *developed* in the course of the study than that this emphasis underwent change.

The original intent of the study was to examine all phases of curriculum planning in the Department. This would have meant an investigation of the following processes:

1. the formulation of policy alternatives for guiding the achievement of specified educational goals;
2. the selection of strategies for implementing such policies;

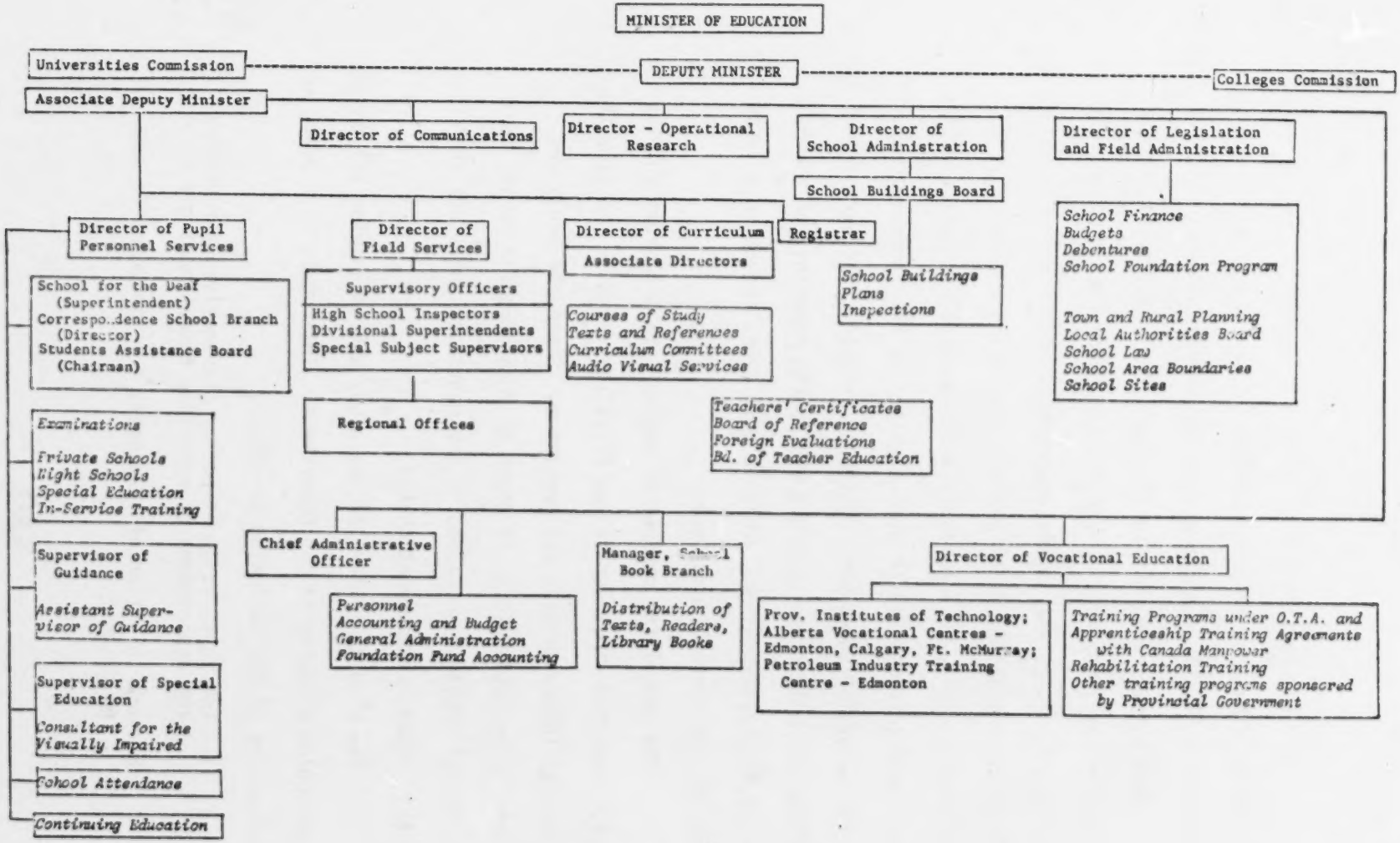

Figure 1: The Department of Education

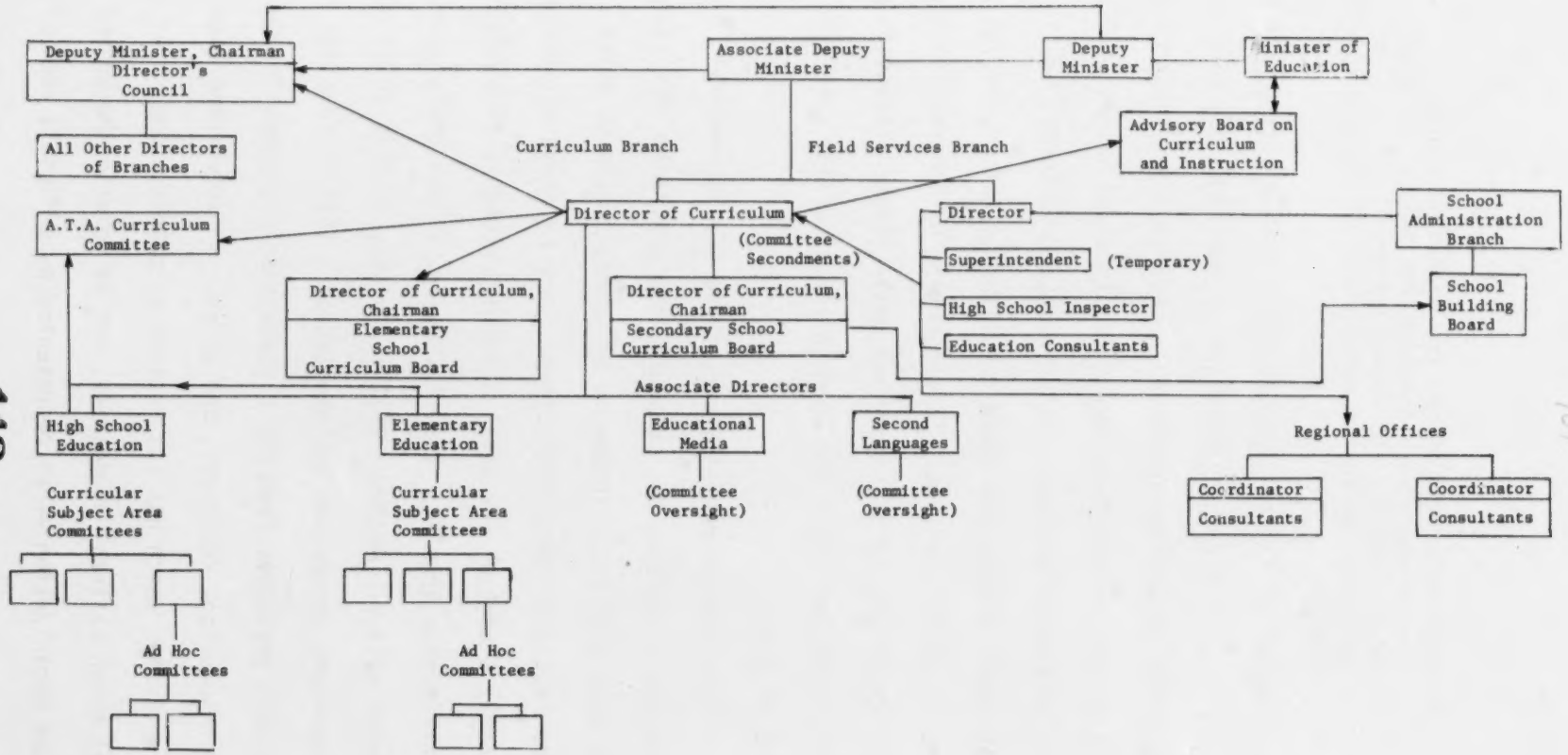

Figure 2: Organizational Units Included in the Study

3. the evaluation of (a) tne degree to which the chosen means were adequate for policy implementation, and (b) the degree to which the original policies led to the achievement of the educational goals.

However, a number of factors impeded the investigation of these phases of planning. The most important stemmed from the fact that planning is not generally considered a separate activity from policy making in general in the department, as explained below. Policy making in most organizations, including the department, has internal political implications, and therefore often is not -- and was not in this case -- easily observed. Consequently, no information was collected about many of the important goal-setting activities which inform planning, nor about the formulation of policy alternatives in reference to goals.

Information regarding procedures for lower-level and short-term planning activities was somewhat more available for planning which is done within the framework of general policies which are set at higher levels of the organization. Some of these activities, while not directly a part of the total planning process ultimately have important impacts upon it. One, obviously, is the implementation of established policy. Another, which is highly visible to an observer, is an important adjunct to implementation. This is "coping" or dealing with pressures from the organization's clients for decisions, problem-resolution, resources, and so on. A large proportion of this latter activity, which has its setting at points close to or on external organizational boundaries, has to do with the manner in which the organization -- as represented by officials and various technically skilled specialists -- adapts to its environment and

establishes a mutual accommodation with it.

Several factors had an important effect upon the *quality* of the information which was obtained. One was the reluctance of departmental officials to disclose the content of evolving policies in general, as well as policies concerning planning techniques in particular, unless the issues involved were already more or less settled. This is not an unusual investigatory problem in organizations. Two factors having to do with the research design itself undoubtedly contributed to it. One was the fact that the study was exploratory and therefore could not be described precisely. Thus many of the individuals who were interviewed may have felt that they could not construct an adequate picture of the possible "political" implications of the study. The second was a matter of strategy more than design in the usual sense. Initially it was felt that most of the information which was required regarding planning could be gotten by approaching branch directors and their associates after securing general approval to approach them. This was a productive strategy in many ways, and it probably elicited more friendly cooperation from these people than if their superiors had been asked to *direct* them to supply information, human nature being what it is. However, one of the ways in which governmental officials maintain and display discretion is by not disclosing information concerning issues for which they do not have complete responsibility, unless they are directed to do so by a superior. In addition, a number of major personnel changes were in the offing in the department during the time the investigation was conducted. This probably contributed to the care with which department personnel chose their words when speaking to outsiders.

A final factor should also be mentioned which is related to the first. This is the matter of the organizational auspices under which the study was conducted. The investigator was confronted with the necessity of explaining (1) why HRRC wanted the information, (2) the nature of the relationship between HRRC and the Commission on Educational Planning, and (3) why the Commission wanted the information. To some this was confusing. In addition, in several instances interviewees either were inadvertently not told, or forgot, the fact of CEP involvement until the actual interview was about to take place. From their reactions, and the reactions of some others, it became rather apparent that while a study sponsored by HRRC was regarded as being, at worst, innocuous, a study sponsored by the Commission was regarded as constituting somewhat of a threat.

The investigator has tried to avoid editorializing about what he has seen and heard with partial success. He *is* of the opinion that value biases inevitably influence research, and that these biases should not be camouflaged in the presentation of supposedly "objective" analyses. Nevertheless, one point relating to this should be made very clear. While comments made here regarding structures, policies, and procedures are often intended to be somewhat judgemental, comments about the relative cooperativeness of the interviewees towards the author are methodological in intent. These are included solely to indicate why certain kinds of information were or were not collected in the context of a type of

organizational setting which is not at all peculiar to the Department of Education. Such comments are certainly not meant to reflect upon the good character of particular individuals, or of department personnel in general.

Policy Making and Planning

The Division of Instruction has at present no operative "planning unit" in the sense of a permanent, formally-established group of "experts" whose main responsibility is to advise line officials on either the possible educational outcomes of alternative policies, or the policies which might lead to predetermined outcomes.[2] This phase of planning appears to be done on a case-to-case basis, with continuity provided by departmental policies, and with the aid of technical information regarding budgetary matters, pupil enrollments, and the like, supplied on request by a data-processing and projection capability provided by the Operational Research Branch, and various technically-skilled staff members. Planning appears to be carried out by (1) line officials, (2) various committees, and (3) the Directors' Council, a collegium made up of

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[2] The PPBES Project has many of the characteristics of a "planning unit", but it is experimental at the present time, and no decision has been made regarding the future use of programmed budgeting in the department.

the heads of all the major sub-units of the department who report directly to either the Associate Deputy or the Deputy Minister of Education. In summary, whether or not a conception of planning as distinct from policy formulation prevails in the central office, there is no definite structural separation of these two activities.

Planning is accomplished, however, in the sense that departmental resources are allocated to meet educational needs which will exist in the future. Furthermore, the extent to which such needs (1) occur, and (2) are actually met, is subjected to evaluation. In order to examine this process in detail, the investigator looked at activities of the Curriculum and Field Services Branches in the Division of Instruction which have to do with planning and evaluation. The major *de facto* responsibilities of the Curriculum Branch are (1) the development of programs of study, (2) the selection of textual materials, (3) the recommendation of curriculum (including the preparation of curriculum guides), and (4) the delineation of student programs as contained in the Departmental Handbooks for elementary and secondary schools. Many of the departmental personnel who sit on committees which handle curriculum design tasks are seconded from the Field Services Branch, which otherwise seems to maintain a close liaison with the Curriculum Branch.

The Curriculum Branch routinely evaluates new courses through field trials. The Field Services Branch, on the other hand, has as one of its major responsibilities the periodic evaluation of

all aspects of school operations, including indirectly the manner in which teachers handle the provincially-prescribed course of studies.

Thus, these two branches are almost solely responsible for handling provincial responsibilities regarding curriculum design and evaluation. Pupil Personnel Services Branch, through the Examinations Board, has a major responsibility for testing student *performance*. This appears to have an impact on some aspects of curriculum design.

The structure--and functions--of the Curriculum Branch, as these are related to planning, can be described in terms of the following:

1. staff-line organization; and
2. interest-group representation.

The Curriculum Branch has a rather small complement of full-time personnel who hold the major "line" positions. These are the Director of the Branch, and the four Associate Directors. The responsibilities of the Director are described as follows:

> This official is responsible for the development of detailed courses of study and the implementation of curricular programme changes. He selects and directs research projects in the curricular field, and disseminates information regarding curricular activities. He recommends text book authorizations and approval of references, and arranges for the stocking and listing of tests and references. General supervision is received from the Chief Superintendent of Schools. (Department of Education, 1962:5273).

Directors have general administrative responsibilities including, as is usual, the performance of a fiduciary role relative to

departmental policy. Although they possess considerable formal authority regarding decisions concerning curriculum recommendations which are made to the Minister of Education, in practice, most of the actual curriculum development work is carried on by two sets of permanent subject area committees.

> There is no one here that writes curriculum here during the day and examinations during the night. We don't do the writing of curriculum at all. We collage it, our editor will edit it, and will put it together into a book (From an interview).[3]

These committees submit their work for approval to one of two boards operated by the branch, the Elementary School Curriculum Board, and the Secondary School Curriculum Board. The committees also receive a considerable amount of direction from these boards. The work of the committees is assisted and monitored by the Director and the Associate Directors, each of whom has responsibility for committees in particular subject areas *or* at one of the two grade levels.

The elementary and secondary subject area committees constitute the staff organization of the branch. These committees are not "typical" staff groups because (1) the members have full-time positions elsewhere; and (2) the amount of disciplinary specialization and formal training of the members varies greatly at this point in time. Half of the members must, by policy, be classroom teachers; the others are school administrators, university representatives, and

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[3] Some excerpts from interviews have been included in this report. These excerpts present "informed opinion", and they have been included in this report with the express permission of those interviewed.

departmental consultants and high school inspectors. This is the result of a departmental policy that has been established to insure that the committees provide a setting in which the separate professional perspectives of the "educational community" of the province can be expressed. This implicitly entails another kind of representation, that of educational *interest groups*, since those educators who share similar professional perspectives usually are in the same interest groups or organizational settings. Provision is made for *formal* interest-group representation, as a matter of policy, on the Curriculum Boards, on which representatives of the Alberta Federation of Home and School Associations, the Alberta School Trustees' Association, and the Alberta Teachers' Association also sit (see Tables 3 and 4). The interest group which has the greatest *de facto* representation on the subject area committees is, of course, the Alberta Teachers' Association, since the teachers who sit on the committees are selected by the department from a list prepared by the Alberta Teachers' Association. However, the extent to which teacher and administrator members of subject area committees consider it appropriate--or expedient--to attempt to influence curriculum development along lines favored by ATA policy, rather than in accordance solely with their professional judgement, is unknown. No evidence of such activity was found in this study. Since the association does not develop curriculum proposals as such, but rather is *usually* concerned with (1) the general curriculum-building structure, and (2) supporting services for curriculum design at the

Table 3: Categories of Department of Education Personnel, and Organizations with Representation on the Secondary School Curriculum Board

Departmental Personnel
The Director of Curriculum (Chairman)
The Associate Director of Curriculum, Secondary Education (Secretary) The Associate Director of Curriculum, Educational Media The Associate Director of Curriculum, Second Languages The Associate Director of Curriculum, Elementary Education
Associate Deputy Minister of Education
Director of Pupil Personnel Services Director of Field Services Director of School Administration Chairman, School Buildings Board
High School Inspectors who are Chairmen of Curriculum Branch Subject Matter Committees
Organizations with Representation
Edmonton Public School Board Calgary Public School Board
The Alberta Teachers' Association The Alberta Federation of Home and School Associations The Alberta School Trustees' Association
The University of Alberta The University of Calgary The University of Lethbridge
Other Post-Secondary Institutions
Two High School Students

Table 4: Categories of Department of Education Personnel, and Organizations with Representation on the Elementary School Curriculum Board

Departmental Personnel
Director of Curriculum (Chairman)
Associate Director of Curriculum, Elementary Education (Secretary) Associate Director of Curriculum, Educational Media Associate Director of Curriculum, Second Languages Associate Director of Curriculum, Secondary Education
Associate Deputy Minister of Education
Elementary School Consultants
Director of Pupil Personnel Services Director of School Administration
Organizations with Representation
Edmonton Public School Board Calgary Public School Board
The Alberta Teachers' Association The Alberta School Trustees' Association The Alberta Federation of Home and School Associations
The University of Alberta

school system level, teacher members of the committees are likely free from pressures to act as interest-group representatives. This does not, of course, preclude attempts on their part to have the needs of teachers--as perceived by the teacher members--taken into account.

The Dynamics of Committee Operations

One point should be made very clear with regard to this section, namely, since the committees were not directly observed in operation, much of what is said below is largely conjecture supported to a degree by statements made by departmental personnel. Part of the reason it is conjecture is that much of it concerns power, influence, and persuasion, all of which are difficult to assess. In addition, all of those interviewed who spoke of committee operations stated that all aspects of these operations are strongly affected by the abilities, orientations, and personality characteristics of members because of the small size of the committees. Therefore, the committees are highly variable, and one cannot safely generalize about them without the sort of data that could be obtained, for example, by a longitudinal study done by participant observers.

It seems that the interaction between the line officials (i.e., the Director and Associate Directors) and the committees is

crucial in determining curriculum development within the branch in the long run. Most of the developmental work is done by the committees which are composed basically of subject matter specialists (from all groups, including the department, as indicated in Table 5), as well as individuals who represent all of the important types of personnel who would be involved in the implementation of curriculum changes in individual schools. Consequently, it seems reasonable to suppose that many, if not most, of the proposals produced by these committees are essentially finished products which do not require extensive reworking to make them technically suitable for departmental use (whether or not they are acceptable on other grounds is, of course, a separate question). In many cases what probably happens (and this cannot be verified within the present study) is that curriculum development proceeds at the provincial level by a process of incremental change. Proportionally more "inputs" to the committees--in terms, at least, of the number of problems and suggestions concerning the provincial course of studies primarily--probably are contributed by the departmental personnel--the high school inspectors, superintendents, and consultants--for the simple reason that they see many schools and school systems in operation, as well as the various ways in which schools implement curriculum in response to local conditions within the limits set by the department. The teachers on the committees have a smaller sample of curricular environments, so to speak, upon which to base their notions of the general suitability of the course of studies (though they have often had substantial *experience* in

Table 5. Curriculum Branch Subject Matter Committee Composition

The Chairmen of secondary level committees are normally high school inspectors. Chairmen for elementary level committees are educational consultants. One university staff member in the discipline area. One university staff member from a faculty of education who is a methods specialist (this person is from a different university than the one mentioned above). Other departmental personnel (e.g., Education Consultants). Teachers chosen from a list obtained from the ATA. At least fifty percent of the membership of subject matter committees must be composed of teachers.
Ad Hoc Committee Composition (Such committees are temporarily established to do a specific task which is defined by a subject matter committee). The Chairman is a teacher in the subject area. The composition of *ad hoc* committees is not otherwise specified by policy.

these environments). This may be offset by a branch policy which stresses the desirability of selecting teachers from all areas of the province who are relatively heterogeneous with respect to their professional and personal characteristics:

> The Alberta Teachers' Association is invited to indicate appropriate people for membership on the Elementary and Secondary School Curriculum Boards. When the period of membership of teacher personnel on committees expires, the Alberta Teachers' Association is invited to submit a list of appropriate people to the Curriculum Branch. In selecting teachers from this list, the Curriculum Branch tries to achieve a balance in terms of age, experience and geographic location (Hawley *et al.*, 1968:6).

Additionally, teachers are certainly more likely to be concerned than the others with common difficulties which teachers in particular must confront in structuring curricula within the limits established by the provincial course of studies.

There is *some* indication that the university members of the committees are both more prone to suggest curricular innovations, and to be less practical in doing so. This is what one would expect because they are not practitioners and because their knowledge base includes much that has not been tested in the Alberta educational system, although the departmental consultants may assume this kind of role to some degree, especially those who have had recent graduate training. The influence of university members may have declined in the last several years simply as a result of the increasing professionalization of both departmental personnel and of teachers. In general, no sharp distinction can be drawn between the amount of technical or academic expertise of departmental members and of

university representatives, because the former are encouraged to pursue higher degrees while on leave from their work. An examination of the career routes which have been taken by officials within the Division of Instruction indicates that many--if not most--of them do this.

In any case, the fact that this system is designed to provide representation for, and coordination among, practitioners, administrators, academics, and departmental specialists means that the committee setting is also probably the normal locus for the resolution of differences in the points of view of these types of professional educators.

The role played by the Director and his Associates--or by them in conjunction with the committee chairmen, who are high school inspectors--in the committee setting is interesting for several reasons. First, the fact that the committee members have vested interests--which may or may not be latent in that context--which coincide with differences in professional opinion means that someone likely has to engineer compromises by virtue of both persuasiveness and authority. Second, what the committees do separately must be articulated, particularly in view of the increasing concern with the importance of relating what is taught in one disciplinary area with what is taught in another. Provision is made for one sort of articulation, that between the elementary and secondary subject area committees, through overlapping membership on committees in charge of the same subject area. Third, someone has to insure that

curricular proposals are not in contradiction to departmental policy (unless, of course, the proposals are specifically intended to change policy). Finally, any sort of long-range curricular planning has to be monitored ultimately by some one external to the committees, who also has the authority to adjust the terms of reference of these committees, in order to insure that they concentrate upon different kinds of problems at different points in time and to insure the attainment of long-range objectives. The extent and manner in which this kind of executive control is exerted, or can be exerted, constitutes an important issue--from an observer's point of view--in relation to the kind of planning-like activity, or planning proper, which is or should be carried out by the department.

A number of additional questions relevant to a thorough understanding of the provincial curriculum planning structure occurred to the author during the course of the study. They are presented here even though all of them could not be satisfactorily answered in the course of the study.

1. to what degree is the committee network adequate for handling innovative as well as incremental "adjustive" changes;

2. to what extent are innovative changes initiated by the line officials who oversee committee activity;

3. how rational is the committee network in terms of the efficiency with which it responds to curricular needs--which fall within its terms of reference-- that develop at the school, school system, and provincial levels;

4. how effective is the network in utilizing research results and curricular innovations produced elsewhere for the design of the provincial course of studies and other curricular "advice"?

The following comment is particularly apropos to question 2:

> Getting back to the question that you raised with regard to curriculum, it's difficult to pinpoint a change that would come in curriculum from the Minister. By and large, to my way of thinking, it comes from the field, from some teachers, from some groups of teachers, and from the ATA briefs that go to the Minister (From an interview).

The manner in which these "questions" are formulated is not intended to create the impression that the existing provincial curriculum-building structure is inadequate for carrying out the functions for which it was designed. However, if one wishes to consider the relative attractiveness of another kind of structure than the present one, one will necessarily proceed from the premise that something better than the present structure might be possible.

Several issues are implicit in these questions. One such issue which is not discussed elsewhere in this report is that of the degree to which the usefulness of formal curriculum can be measured in schools. Such measurement is obviously involved in curriculum evaluation, and curriculum evaluation obviously has a direct impact upon the effectiveness of curriculum, and the extent to which curriculum development structures can adapt to social changes which affect education. However, it appears that measurement techniques (whether quantitative or not), and the uses which are appropriate for them in curriculum development are viewed quite differently by various groups of professional educators:

> Some view the curriculum as eternally dynamic, never fixed or even complete. In addition, evaluation is constantly interwoven with the curriculum development which, in a real sense, never ends. Decisions as to the inclusion and exclusion of materials in the curriculum, the increase or degree of emphasis on a given topic, and the like, are made regularly on the basis of evaluation data. In this situation, a large degree of generalizability in a strict sense is less important than it would appear on first inspection.
>
> For those who are looking for a specific termination point in curriculum development, no doubt a large degree of generalizability is an absolute condition to be met. They want pay-off evaluation which yields results capable of defending a decision to adopt or not adopt a particular curriculum, for example. Such decisions must be made, of course. Like so many decisions in education, they ought to be made--or should be made--on a comparatively short-term basis. The methodology of pay-off evaluation cannot escape from the limitations created by inadequate samples of teachers and students, measuring instruments with less than a satisfactory degree of content validity, and the artistic nature of teaching (Ahmann, 1967:88-89).

Evaluation Inputs

The Curriculum Branch makes use of a number of different kinds of evaluation inputs with regard to program content and materials. The most routinized kind of evaluation appears to be that conducted of experimental courses and programs by subject-area committees. All new courses approved by the branch are initially "experimental" and must be offered in a sample of schools for a year. During this period,and at the end of the school year,the courses are subject to evaluation procedures which are used to provide a basis for deciding if the courses are suitable for

inclusion in the provincial program of studies. This kind of evaluation involves the use of questionnaires designed by the committees to assess the opinions of teachers (and increasingly students), who are participating in experimental courses. A parallel evaluation of such experimental courses is conducted by Field Services evaluation teams when they are doing general evaluations, if any of the schools involved have such courses in operation.

Assessment of the continuing effectiveness of the courses and materials prescribed and suggested by the Curriculum Branch is not routinized, and is based on the information sources described below.

Another type of opinion survey evaluation which is carried out by committees is that of teacher and student attitudes towards more general aspects of operative programs. This is evidently done intermittently.

Two other kinds of inputs regarding program adequacy are specifically generated by the department. One is the examination of public conceptions of the proper aims of education. The Curriculum Branch has produced at least three major documents devoted especially to this area of concern during the last year. Two are *statements* of desirable aims, for the elementary and secondary levels, which have been distributed for public and organizational reaction preparatory to the formulation of departmental policy. The other presents the results of a 1969 replication of an earlier survey of public opinion regarding "the tasks of the public schools of Alberta". These

documents, and the activity which generated them, reflects obvious departmental concern with an important problem, namely, the determination of educational priorities and the establishment of programs which reflect these priorities. The manner in which this concern is expressed in these documents is clearly informed by the departmental tradition of insuring that the programs in the schools are relatively congruent with the needs and wishes of the general population, as perceived by the department.

Consequently, it seems both of the "aims" statements have a decidedly conservative tone, in that they largely enunciate educational principles,and concomitant operational implications which have been generally accepted among educators for quite some time. The degree of acceptance with which they have been met by school boards, teachers, and parents is not as clearly ascertainable.

The last specifically governmental input which involves a form of curriculum evaluation is that of the Royal Commission investigations of education. There have been just two of these in the history of the province, but both have been recent, and they both reflect a felt need for a particular kind of evaluation which involves an investigatory body that has a unique structural relationship to the department, the public,and the government.

Returning to the Curriculum Branch, there are two other kinds of input to which branch officials ascribe significance. One is the letters and representations received from private citizens and organizations of all sorts, some of which have to do with

curricular matters. The assessment of such materials is not, of course, subject to routinization. Departmental officials indicated that they try to maintain a sensitivity to the concerns which are expressed in this form, especially where numerous individuals or organizations seem to express a consensus that a problem of some sort exists.

The department also receives a more formal kind of organizational submission, in the form of briefs from the Alberta Teachers' Association, the Alberta School Trustees' Association, the Alberta Federation of Home, and School Associations and other organizations. The briefs from the Alberta Teachers' Association are basically elaborations upon resolutions which have been approved by the annual representative assembly of the association, and they may have a bearing upon curriculum and program matters, depending, of course, upon whether or not that happens to be of concern to the association at any particular point in time.

With regard to curriculum and program matters at least, several links are maintained between the Curriculum Branch and the ATA, at different organizational levels. Two have already been described: ATA members sit on branch subject area committees, though more in their capacity as teacher-professionals than as ATA representatives. *Explicit* ATA organizational representation is provided on the Elementary and Secondary School Curriculum Boards. A higher echelon link has also been established between the branch and the ATA because the Director of Curriculum, the Associate

Director for Secondary Schools, and the Associate Director for Elementary Schools sit on the ATA curriculum committee. One important function of this arrangement, as indicated to the investigator, is to provide the curriculum committee with information regarding ongoing branch activities so that this committee will have a firm basis upon which to develop notions for the ATA regarding what should be done at the provincial level about curriculum and program structure and development:

> I think the main purpose of departmental representation on the ATA curriculum committee is to clarify what is going on in the area of curriculum development so they don't get themselves involved in making representations that are not based on a sound understanding of what the actual situation is...Because otherwise they would find themselves in the situation of presenting formal statements to the Department of Education that they really don't want to present. And then they would find out what the state of the union was (From an interview).

In summary, the kind of information the Curriculum Branch receives which it can use for evaluating the quality of its "products" is varied in quality, emphasis, and in frequency. Perhaps it is fair to describe the relationship between the branch and its environment as "diffuse" in the sense that there is no clear limit to the kinds and amount of access the environment (meaning individuals, groups concerned with education and just "information") has to the branch. This diffuseness is actually greater than the foregoing description of inputs suggests, since Field Services Branch personnel who have extensive contact with school operations--consultants and high school inspectors--sit on curriculum subject

area committees along with practicing teachers.

One can interpret this apparent diffuseness in a number of ways. It is certainly indicative of a heavy reliance upon the professional judgement of branch personnel and committees. The use of professional and executive judgement is the only way non-standardized information of the sort which is used to evaluate and structure curriculum can be handled.

The diffuseness is definitely and obviously related to the personnel overlap between Field Services Branch and the Curriculum Branch. This overlap is of long standing and likely was established to utilize skilled personnel more effectively, as well as to facilitate communication and coordination between two branches whose activities are highly related. In addition, the diffuseness is likely a natural consequence of organizational structure and development. Both Field Services Branch and the Curriculum Branch have a small complement of personnel. The line officials in particular are few in number. This, along with some other factors, especially the "flatness" of the organizational hierarchy, appears to have created a situation in which ready access to these people exists. In other words, they are "close to" the educational environment of the organization.

Finally, the diffuseness may be interpreted in an entirely different way by the personnel of the two branches than it has been by the investigator. They may perceive clearly defined limits to both kinds of information and, more specifically, pressures from clients

that contain "messages" which they can or will consider. Departmental policy obviously specifies this to a degree. Nevertheless, the organizational *structure* of the Curriculum Branch, along with the policies which have been mentioned that control curriculum development, appear to guarantee that curriculum evaluation inputs will be multiple and various, even if they are not diffuse.

What happens to all of these inputs within the structure when they are interpreted by individual officials concerned with effecting accommodations between departmental policy and currently salient educational problems is largely unknown and likely unknowable, at least from the investigator's point of view. There are severe methodological problems involved in investigating administrative decision making, since such decision making is, of course, a large part of processing "inputs". Some departmental personnel, who were especially candid, stated that it was often extremely difficult for them to be sure of the ultimate disposition of their own ideas. They also said that sometimes a notion which they put forth would circulate, returning to them modified sufficiently so that they could not tell if it was really theirs or not not. Similar comments were made about decision making, the essence of which often seems to be an ongoing process of mutual influence among a group of people, where this process occasionally precipitates an act on the part of one of them which we call "making a decision".

Another open question closely related to the handling of inputs is that of the magnitude of the time lapse between the development of a provincial curricular "problem", the perception of it, and the taking of steps to correct it. Investigating this comprehensively would be complicated, but two observations regarding it seem to be in order:

1. at present there are no well-defined criteria grounded in a stated rationale for assessing the degree to which the continued use of a particular course or course sequence has resulted in the attainment of specific instructional objectives other than examination results. This undoubtedly affects the rapidity with which "problems" are perceived; and

2. the necessity for the piloting for at least a year during which they can offer both versions of a new course, sets a lower limit of three years upon the time required to have a new course in the schools and fully operative from the time a decision is made to create a new course. This assumes a minimum of one year for course development work by the Curriculum Branch.

A large part of what is involved in the perception of curricular "problems" is the manner in which important participants in the practice and development of instructional programs perceive, and in particular, anticipate, these problems. Thus, it might be extremely pertinent to ascertain, perhaps through the use of a survey of some sort, what is the "time horizon" of teachers, administrators, departmental officials and consultants, and others directly involved in the ongoing development of instruction:

> If you were to ask a typical school staff their conception of planning, they would think in terms of the ongoing day-to-day lesson plans they would undertake. If you were to quiz central office people, that is, the superintendent and his assistants, they think in terms of systems. The superintendent would tend to think in terms of staff deployment and facilities and financing and so on. In counties and divisions he tends to be the individual that is concerned with what we normally think of as planning in the school [which involves] projecting for the future and reorganizing with future needs in mind (From an interview).

It was stated above that structure and policy "appear to guarantee" multiple curriculum evaluation inputs. The investigator formed the definite impression that this is not in any sense accidental, but rather reflects one important facet of departmental "ideology" which has extremely important implications for the probable success of any attempts to introduce a more routinized, technically sophisticated, and perhaps inevitably more centralized curriculum planning structure.

The personnel in the Division of Instruction appear to be committed to the principle that the various publics of the province should define the aims of education, and that they should have a voice in determining the *means* which shall be employed, depending upon the degree of expertise they possess which is relevant to educational practice.

A more general organizational interest in this principle is also reflected by the operation of the Minister's Advisory Board on Curriculum and Instruction. This board is composed of lay members nominated by, but not representing, voluntary organizations in the province. The purpose of this board is to consider general

questions relating to instructional goals, as well as other questions relating to instruction which they or the Minister may wish to consider.

The commitment of Division of Instruction personnel to public definition of aims is not totally antithetical to planning, since planners are seldom actually entrusted with the task of defining the goals they are expected to help achieve. However, any kind of planning group worthy of the name which is relatively permanent would want to design and activate routine and uniform data gathering procedures intended to replace the more casual, impressionistic, and experience-based observations volunteered by, for example, teacher members of departmental committees. Such a change would lessen the amount of outside participation in curriculum formulation and consequently would probably encounter some resistance.

Further speculation along these lines, in this report, is premature. A related aspect of the "ideology" should be mentioned which may decrease the opacity of some of the preceding remarks. This is that the ideology is inconsistent because it stresses both lay participation and *professionalism* on the part of departmental personnel. Of course, "professionalism" subsumes a variety of orientations towards the application of a body of knowledge. At the present time, a significant part of the "professional" body of knowledge which upwardly mobile officials in the Division of Instruction are required to master is that which they acquire through experience as teachers and school administrators.

In the coming years, the disparities in outlook between

groups within the department who have extensive field experience, and the groups that have a more exclusively technical or academic background might widen. It seems to the investigator that this is especially likely if alternative career opportunities outside of the department increase for the technically skilled. At present, opportunities for transfer from the department to universities or to other educational organizations appear to be limited, except for more capable, senior personnel.

In any case, the climate in the Division of Instruction is somewhat conducive to an increased reliance upon the talents of staff specialists, including individuals with planning skills. There is some indication that the climate will improve in this respect, as well as that increased specialization and professionalization could lead to internal conflict which could be serious.

Conclusion

Most of this report has been concerned with three aspects of curriculum development at the provincial level. These are: (1) organizational structure, (2) curriculum design, and (3) curriculum evaluation. Curriculum *implementation*, in other words, teaching, was not discussed. However one thinks of planning--in terms of either primarily control over curriculum, or in terms primarily of acquiring knowledge about important aspects of the

educational environment, and attempting to effect an adjustment of the provincially developed curriculum and programs to students' needs, public "interests," and instructional approaches and materials--one has to, at some point, consider how the characteristics and behaviors of *teachers* are going to affect the nature and quality of instruction. Satisfactory answers to several important questions concerning the provincial curriculum and program development apparatus could not be obtained during the course of study. It would have been useful, for example, to have sampled teacher opinion on programs, on their perceptions of problems which have arisen with programs, and the amount of time it takes for the department to react, concretely, to such problems. That is, the *responsiveness* of the system might have been measured.

It would also have been interesting to assess the degree to which teachers experiment with curricular innovations. The department has been *prescribing* an increasingly smaller proportion of the content of courses as well as curricular materials in the last few years. The Curriculum Branch still designs and disseminates curriculum guides, which are not prescriptive, as aids to teachers who do not design their own courses. The department also is providing, through Field Services Branch, an increase in the number of consultants based in regional offices who are able to provide schools with instructional as well as administrative advice. If, as was indicated to the investigator, most teachers do not have the time or the inclination to design their own courses and tend to

follow the Curriculum Guides, then the Curriculum Branch is, in effect, put into the position of planning course content somewhat as before. This appears to be less likely in the large urban school districts, where (1) teachers are probably more prone to innovate, (2) more *money* is available for innovations, and (3) the school boards play a much more influential role in providing program development advice.

In any case, more information about the effect of the shift in emphasis placed by the department on prescription upon the quality of instruction would have been desirable.

These and other points of interest require detailed information if they are to be examined meaningfully. There are also a number of interesting implications regarding curriculum and program development which can be drawn, with a reasonable degree of certitude, from knowledge of the general structure of the curriculum development apparatus, and the principles upon which its operation is based. The relevance of these implications to "planning" is variable.

First, the provisions which exist for teacher and administrator representation on curriculum committees appear to guarantee that the branch will not be ignorant for long of serious problems which arise in the implementation of the program of studies.

Second, the provisions which have been made for *interest group* representation seem to guarantee that an adequate

level of communication can be maintained between such groups and the Curriculum Branch.

Third, the entire system appears to be designed to best initiate incremental changes in programs. It does not appear that bold, imaginative ideas are likely to come out of this apparatus unless (1) such ideas have the continuing support of line officials, and (2) they receive a relatively high minimal level of acceptance from the practitioners who sit on the committees. In essence, the apparatus seems to be designed to operate in a conservative fashion, in the sense that (1) it expends much of its energy in solving problems which develop in the field which require program changes (a "problem" can be the superannuation of a text-book), and (2) it innovates only when the climate in the schools--in general--is highly favorable to innovation.

The factors responsible for this inferred conservatism appear to be (1) the policy commitment to interest-group representation, (2) the apparent necessity to insure a relatively high level of acceptance of programs among parents, teachers, administrators, and students. The term "conservatism" is used advisedly here; it seems more apt than any alternative. Whether in fact curriculum development is any more--or less--conservative in this sense in Alberta than in any other province is entirely open to question.

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CHAPTER VI

TOWARD A CONCEPT OF EDUCATIONAL PLANNING

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The preceding chapters have presented various perspectives on educational planning including general overviews, critiques, and notes of caution as well as a description of current planning practices in one substantive area. These various perspectives are intended to contribute to the development of a concept of planning which could lead to improved planning practices in future. We have now reached the stage at which it seems appropriate to attempt some form of summary of these various perspectives in terms of prescriptive statements concerning desirable characteristics of planning processes and planning structures. Attention also needs to be given to some of the problems which will be encountered in operationalizing any concept of planning.

Characteristics of Planning

In order to work toward a concept of planning we have extracted freely from analytical and descriptive models to develop some more or less prescriptive statements. There is limited

empirical data with which to buttress these preferences and prescriptions; in many instances there is little more than a vague feeling on the part of the authors or others that planning would be improved if it had some of the characteristics which are elaborated below.

1. *Planning is but one aspect of the total decision process in a system; in order to be effective it must be linked to the other phases of the process.*

An almost universal experience with early efforts at educational planning was the limited impact which planning activities had on actual decision making. Neither the manpower approach, nor the social demand approach, nor flow models, or any other of the standard planning techniques seem to have influenced the course of policies even where planning supposedly was being practiced. The explanation for this lies only in small part with the techniques, or planning "approaches", themselves and more in the isolation of planners and the planning process from the actual decision process. To probe even more deeply, one would probably find that there are conceptual as well as structural reasons for the gulf between planning and political decision making.

An OECD (1970a:7) paper on educational planning, policy, and administration explains that in the early stages of planning the assumption was made that "a clear-cut distinction between the functions of educational planning and decision making could be made and should be desirable. It has also been proposed that it

would be more meaningful to

> ...no longer look upon educational planning as an activity being separated from political decision making, because this can easily lead up to a relationship in which the decision makers are taking decisions whilst the planners are elaborating their plans that have little or no impact on changes in the society that they are "planning"... (OECD, 1970b:18).

Instead, within a new concept "planning is considered as one of the dimensions of the decision making process itself" (OECD, 1970b:18).

The OECD concept views planning, administration,and policy to be the three dimensions of the decision making process. Each of these dimensions has a specific func on: planning develops innovative decisions and decision programs, policy guarantees the acceptance of decisions,and administration makes routine decisions corresponding to relatively fixed programs (OECD, 1970a:19-20). Although there could easily be some disagreement about these specific definitions, the merits of conceptualizing such linkages are obvious.

Hopefully, linking planning conceptually to other dimensions of the decision making process will result in role definitions, structures,and practices which will increase the probability that planning within a system will make a difference in the future of that system.

2. *Planning should be a continuous process.*

Planning should be as much a continuous, dynamic process within a system as are the other phases or dimensions of decision making. It is all too easy to be misled by the usual organizational

provisions for planning--creation of specific plans, use of ad hoc planning committees, and so forth--into believing that planning can be intermittent and sporadic. Planning itself is an ongoing part of system processes and should not be confused with the short term act of creating a plan which can then be implemented gradually over a long period of time without additional planning.

It is not sufficient to conceive of planning as a sequence of phases consisting of plan development, plan implementation, and plan evaluation. Although a plan may actually go through these phases, it is unlikely that the plan which is finally implemented is (or should be) identical to the one which was initially proposed. Plans are always formulated on the basis of limited and incomplete information about the future. When new information becomes available, the shortcomings of the plan can be identified and corrections can then be made. Beer (1969:398) makes the following crucial point with reference to corporate planning:

> ...corporate planning is a continuous process, directed towards the adaptation of contemporary decisions about the future to the continuously present state of knowledge

and further

> Corporate planning becomes a machine for sequentially aborting incompetent plans. Planning is essential, if the enterprise is not to be randomly perturbed by the interplay of future events. But, paradoxically, the next most important feature of corporate management is the organizational capability to abort the plans on a continuing basis.

In educational planning this same general idea has been

expressed in terms of a concept of "rolling planning"; that is, the recognition that plans (targets for growth, financial allocations, projections of demand, and so forth) must be subjected to continuous, or at least periodic, revision. Although this may seem to be an obvious characteristic of planning, it is significant to note that it has not been a feature of many actual planning efforts. Also slow to emerge was the realization that the crucial element in the entire process was the *planning* and not the *plan*.

3. *Planning processes must be viewed as being complex and multi-dimensional.*

Existing analyses of planning behavior do not appear to give sufficient attention to the complexity of planning. In particular, possibly important differences in the characteristics of planning which take place at different levels of an organization and at different developmental stages tend to be overlooked. Since planning is one facet of the total decision process, it would seem reasonable to expect that planning could be subjected to analyses similar to those which have been developed for decision making.

For example, one important variation in planning is the environmental constraints under which planning is being carried out or the "degrees of freedom" which planning enjoys. Friedmann (1967:229) makes a highly useful distinction between developmental planning and adaptive planning. In the former he conceives that "there is a high degree of autonomy with respect to setting of ends and the choice of means" while in the latter "most decisions are

heavily contingent on the actions of others external to the planning system". Friedmann (1967:232) suggests further that "developmental planning tends to shade off into policy making, adaptive planning into programming". The main reason for drawing out these distinctions is to suggest that different forms of planning necessarily involve different structures and techniques which are not always made clear in prescriptive planning theories. Friedmann (1967:244, 238) makes a similarly useful distinction between *innovative planning* defined as "a form of social action intended to produce major changes in an existing social system", and *allocative planning* which is "the assigning of resource increments among competing uses". Dror (1963:101) also made a significant contribution to the analysis of factors and variables which shape the planning process through the methodology of facet analysis. He identified the four primary facets of planning as (1) the general environment of the planning process; (2) the subject matter of the planning process; (3) the planning unit; and (4) the form of the plan to be arrived at. Regrettably, systematic analyses such as these have not been carried forward to the point which would be desirable. These are, however, the types of distinctions which must be made and the sorts of analyses which should be carried out if any general concept of planning is to become operational.

4. *Planning should be comprehensive and broad in scope.*

Another one of the distinguishing characteristics of the early planning efforts in education was the restricted scope:

> Planning has been identified with forecasting one or a few easily quantifiable "goal" variables such as the demand of students for education or the need for manpower of the economy (OECD, 1970a:3).

It has become apparent that while educational planning must concern itself with these types of variables, it also cannot escape giving attention to the goals of education, the content of educational programs, educational technology, and the like. In a concise treatment of the historical development of edcuational planning Coombs (1970:55) states:

> ...educational planning, without abandoning its macro-view, must now turn its attention to the internal affairs of education. The aim must be to improve the performance of educational systems through changes that will make them more relevant to the needs of their clienteles, more efficient in their use of available resources, and a more effective force for individual and social development.

The broad scope of educational planning necessitates that it involve people with a variety of skills at various levels in the educational system. Comprehensive educational planning requires expertise in such diverse fields as economics, demography, learning theory, educational technology, organization theory, and systems analysis among others. Implicit in this as well is the idea that a variety of techniques can and should be used in planning. This means that educational planning will encompass much more than was implied by the classical manpower and social demand approaches; it must include a variety of tools and sources of information helpful in making management decisions.

5. *Planning should be directed toward increasing, rather*

than decreasing, the range of possible future options.

One probable source of resistance to planning is the fear that the process will restrict the scope of future policies; precisely the opposite should hold true. Eide (1970:25-26) states:

> In a dynamic planning perspective, the value of maintaining options for future decisions increases, as does the cost of reducing such options. The range of future choice becomes in itself an objective of planning, worth a considerable loss in short term consistency.

This may imply a shift in the values applied to the decision making process from those which favor swift, decisive action to those which favor more careful scrutiny of decision situations--decisions taken should follow extensive deliberation and the critical examination of alternatives. It implies further that policy makers, and other decision makers as well, must sift out decisions in order to determine which ones need to be made immediately, which ones should be delayed,and which should be reconsidered. Furthermore, the desire to maintain a range of future options also emphasizes the importance of analyzing the probable consequences of existing policies, particularly those which are not made explicit but which are implicit in the series of political decisions made about education.

Another way in which planning should increase the range of alternatives is through the extension of the search process. The March-Simon (1958:140-141) distinction between satisfactory versus optimal standards in decision making is well-known but perhaps merits restating:

> Most human decision making whether individual or organizational is concerned with the discovery and selection of satisfactory alternatives; only in exceptional cases is it concerned with the discovery and selection of optimal alternatives.

Planning processes should stimulate the search for alternatives which are beyond the level of merely "satisficing"; instead, they should be directed toward the search for optimal solutions. Alternatives which normally might have been overlooked in the absence of planning might possibly be identified.

6. *Planning should be change-oriented as well as future-oriented.*

It seems almost trite to identify this as a desirable characteristic of educational planning; however, there is such a great danger that planning may be directed only at the linear expansion of a system that the point needs to be stressed. Planning in education needs to concern itself with all of those things which can be and which must be planned:

> Improved performance does not mean doing better what is already being done; it means doing things differently and doing different things. Therefore the dominant emphasis of the strategy now called for must not be upon expansion *per se*--though certainly more expansion will be needed--but upon change and adaptation (Coombs, 1970:55).

This broadens the concerns of planning to include such different areas as the process of change and alternative futures. Hansen (1968:62) goes so far as to suggest that all planning organization is useless unless planning activities are directed toward change.

The change orientation is related closely to futures

orientation in educational planning. Futures orientation implies attempts at a willful selection of futures from among conceivable alternatives, rather than merely allowing future states to develop haphazardly. Ziegler (1970:2, 4) states:

> Planning, whether in or outside of the educational system, is an attempt to gain some control over the future, to reduce the intrinsic uncertainty of the future to manageable proportions. Planning may primarily seek to prepare for the future; it can also serve as an instrument to change it

and further:

> Rather than accepting the traditional characterization of educational planning as a mechanism for devising policies that will be appropriate to the future we expect, we might explore how, and under what conditions, educational planning might serve to facilitate the development of policies which could result in the kind of future we want.

The magnitude of the organizational (and political) task of linking such futures concerns to present policy making probably cannot be overestimated; however, it is a task which cannot be ignored.

7. *Planning approaches and techniques must be appropriate to policies, goals and programs.*

The more that planning is analyzed, the more complex and broader in scope it appears to become. Both as an area of study and as an area of practice it is composed of fields which are in themselves complex: policy formation, organizational decision making, evaluation, management science, and others. Consequently, it should not be expected that a simple model or a restricted set of techniques could encompass the entire area of concern; yet, historically, this has been a common pitfall.

Only recently the three dominant "approaches" to educational planning were identified as social demand, rate-of-return and manpower planning as if these were indeed mutually exclusive. The pitfall still exists that in a complex area such as planning, specific techniques (cost-benefit analysis, program budgeting, computable models, or others) might be represented as final answers to planning problems. As was pointed out in earlier chapters, it is most important to decide first on the purpose or objective of planning and then to select techniques and organizational structures in the light of these previous decisions. This is saying no more than that the first step in planning is *to plan* for planning.

It becomes crucial, therefore, for planners or the users of planning to engage in a thorough analysis of the objective and the substance of planning before becoming enamored with particular strategies or techniques. In particular, the planning client must guard against being sold a "package" whose contents are of dubious value for his purposes and in his situation.

8. *Planning must still be regarded as more art than science.*

Various planning techniques are reaching relatively high degrees of sophistication; however, the total planning process (both conceptually and empirically) seems to fall short of the standard set by individual techniques. It may indeed be a case of the whole being less than the sum of its parts! Although specific techniques can be regarded as highly "scientific", the application of the

techniques to planning and policy making is another matter. It might best be described as "the art of preparing to engage in the science of muddling through". The planner and the decision maker must accept the fact that there is a high degree of uncertainty with respect to the future (particularly the long term future), that the system within which they work is probabilistic in that only a limited number of its future states can be known (Beer, 1959), and that consequently, control of the system is incomplete.

Any system which decides to engage in more deliberate and self-conscious planning activities must accept that this will in itself be a learning process; that is, a system will need to learn how to plan while engaging in planning. Some evidence for this statement is the frequent reference in the literature to the need for case studies about planning experiences which could provide the empirical data needed to support or invalidate current prescriptive generalizations. Much of the current thought about planning gives indications of where the process might start but it does not offer many firm indications as to where the activities will lead a system.

Characteristics of Planning Structures

The general characteristics of planning as it might be, or should be, which have been set out in the previous section have definite organizational implications. Indeed, the task of

implementing a particular concept of planning is in large part a structural task of modifying role definitions and relationships as well as adding new roles and units to existing structures. Although some of the following generalizations are closely parallel to the previously stated characteristics, it seems appropriate to restate them in slightly different form in order to emphasize the structural aspects of the general planning concept which is being developed.

1. *Planning should take place at all system levels.*

The complexity of planning and its close relationship to the decision process dictates that the function cannot be restricted to specialized planning units. Although certain aspects of planning require particular types of expertise which might best be centralized, the total function must be dispersed in much the same way as is decision making in general. As Coombs (1970:60) suggests:

> To extend educational planning in this manner will inevitably mean merging it more intimately with the process of management, pedagogy,and research and development. This will make planning less distinguishable from other functions, less a thing apart, and considerably more interdisciplinary in character. Instead of being regarded the special domain of a few technical planning experts occupying a back room near the Minister's office, educational planning will become the standard business of virtually every operator in the system, including, not least of all, the teacher.

The organizational implications of this concept are challenging for those systems which have previously not thought very seriously about planning. There is evidently a need for specialized planning units; the composition of such units, their location within the system, and their linkages to other parts of the system need to be determined

individually for each system. In addition, steps must be taken to prepare all decision makers from students and teachers through all levels to engage in planning and to form effective links with those engaged in planning at other levels.

The OECD (1970a) paper on planning, policy, and administration conceives of planning as a multi-phase and multi-level process. The three phases of planning--programming, implementation, and evaluation--occur at national, regional, local, and institutional levels. The actual substance of the planning at each level is undefined and will, of course, vary from situation to situation. Nevertheless, this general framework does suggest the need for clarifying what forms of planning might most appropriately take place at various levels in any effort to organize for planning.

2. *Planning must be closely tied to the overall management of a system.*

The importance of linking planning to other processes conceptually has already been stressed; at this point the importance of functional and structural linkages needs to be made explicit. Writing from an impressive background of experience with planning needs and activities, Coombs (1970:15, 33, 52) says:

> Planning is, or should be, an integral part of the whole process of educational management, defined in the broadest sense. It can help the decision-makers at all levels--from classroom teachers to national ministers and parliaments--to make better informed decisions

and further:

> To be effective, the planning process must be closely tied

> to the process of decision-making and operations. If isolated in a back room it becomes a purely esoteric exercise whose chief effect is to frustrate those involved

and

> In the last analysis, an educational system will be well planned and its plans well implemented only if those responsible for its parts are themselves good planners...

It would seem that planning experience and theory supports the general speculation about the merits of widespread participation in organizational decision making. Perhaps participation is even more important with respect to educational planning.

3. *At the macro-level, educational planning should be coordinated with general social and economic planning.*

Systematic educational planning originated within the context of economic planning and concerns about the pace of social development. Since its early stages it has moved toward being a separate undertaking with its own unique and private concerns. Even though there are highly useful outcomes from this type of specialization, there is a danger that educational planning in practice may move too far away from planning for other social services.

The interdependent nature of services, the limits on resources, and the need for priorities necessitate various forms of coordination. Furthermore, educational planning carried on in isolation will probably tend to be more adaptive than developmental as educational systems may find themselves being forced into adjusting to ever-changing contingencies. Whatever planning

structures are developed should provide for the necessary communication and coordination among various planning agencies, particularly at the governmental level.

4. *The institutionalization of planning within a system will require adjustments in existing structures and processes.*

If planning is to have some effect on policies, specialized planning units cannot merely be attached to an existing administrative structure--"Such a unit can quickly find itself frozen out of the main arena of decisive action" (Coombs, 1970:51). Instead, planning must become institutionalized within decision processes and structures; planning units must be linked effectively to decision centers. The organizational location of a planning agency or unit will determine the influence which it can have and also the problems which it will encounter in gaining acceptance from other units.

Existing formal and informal structures usually have a marked influence on changes within or additions to organizations. Kimbrough (1964), for example, has described how the organizational setting influences educational decision making; it is almost certain that similar observations could be made about the planning process. This implies that planning structures must be designed and adjusted to particular settings in accordance with what appear to be the most promising ways for initiating more deliberate,

rational planning activities.

At least one caution needs to be observed on this point. It would be all too easy to err in the direction of fitting new planning efforts too closely to existing processes, and structures. In order to achieve a new emphasis, it may be necessary to introduce new structures, and practices which will force existing patterns to change. Obviously, the new structures must have sufficient appeal, resources, and visibility to make their presence felt. If the new institutions do have at least some of these characteristics, then existing institutions may be forced to make significant adjustments.

Problems in Operationalizing a Planning Concept

By now it is only too obvious to the reader that there are possibilities for many problems in attempting to operationalize a concept of planning which has the characteristics outlined in the preceding sections. These problems are inherent in the nature of the educational system, in the nature of change, and in the planning process itself.

Educational System

There are many features of an educational system which militate against planning. The more complex and the more firmly established

a system is, the more difficult it may be to institutionalize a new approach to planning. It is obvious that decision structures will resist attempts to redistribute decision making power, that entrenched practices will resist change at all levels, and that there will be some who will oppose planning *per se* on ideological grounds. While this will hold for even a simple system, it will be even more true for a complex system which involves many decision makers, different types of institutions, geographically dispersed units, various types of programs, varying ties with other institutions, and so forth. Planning the overall development of the system in some meaningful way seems almost impossible.

Change

Another major source of difficulty arises from problems of introducing and organizing for change. The pace and scope of change have been frequently discussed and need not be elaborated here. There is no end to the objective evidence, and exhortations, to the effect that many adjustments are needed in our institutions and that these adjustments must occur very soon. The fact that so many of our institutions have survived so far may be an indication that some minimal adjustments are taking place; of course, whether these are adequate is debatable. Our efforts to introduce changes are hampered both by limited resources and by our lack of knowledge about planned change.

In spite of the attention which has been devoted to planned

change, Chin (1967:56) wrote a few years ago:

> We are in a primitive stage in creating a body of knowledge for effecting change that is relevant to the existing conditions and problems, that includes the processes for arriving at mutually constructed goals, that has spelled out methods and procedures, and that advances the problem towards these directions.

Chin categorizes approaches to change as empirical-rational (demonstrating validity of a new mode), normative-reeducative (using direct intervention on people), and power (relying on compliance or submission). Although it is possible to develop such categories which are helpful in some respects, the question of which approach to use under what circumstances is still more readily resolved through judgement than through the application of validated knowledge. In other words, we are reinforcing the earlier observation that planning is still more art than science.

Policy, Planning, Administration Problems

The factors which have been mentioned above probably apply to the implementation of most planning concepts. There are some more specific problems associated with a concept of planning which strives to link policy, planning, and administration as outlined in the OECD (1970a) paper and to some extent in this paper. In view of the complexity of these problems it is not possible, nor is it essential, to subject them to detailed analysis at this point; a brief explanation will suffice.

Knowledge of the Decision Process. It would be highly helpful to have a thorough understanding of how policies are formulated and how decisions are made in the system which is to be influenced. Such information is difficult to obtain for any particular system, and generalizations about the role of formal and informal structures may not be too helpful. The need for highly specific types of knowledge is illustrated in a study by Milstein and Jennings (1971) who reported that educational interest groups may not be using the most effective strategies. Problems stemming from an incomplete understanding of policy making and decision processes have also been mentioned by Kimbrough (1964) and Dror (1968).

Centralization vs. Decentralization. This classical issue in administrative thought appears again in connection with planning. To many, planning carries connotations of centralized control; however, this need not be the case. There may be many instances in which planning will lead to greater decentralization if this appears to be the most rational approach to coping with problems. However, the extent to which decentralized strategies are deliberately followed in planned approaches and the extent to which there is a centralization bias in planning are not known. On the other hand, the decentralization bias of some planning critics may be just as dysfunctional as the possible centralization bias of the proponents:

The argument has been made that decentralized operations

> move decision-making closer to the place where decisions are applied. It implies that such decisions will be more responsive to particular conditions and cases. But this is not always so. Some of the worst bureaucratic systems are the most decentralized. A major problem with the Public Assistance structure, for example, is that decisions are made by the case-worker, case by case, and often in quite arbitrary fashion (Levine, 1968:87).

Obviously, it is difficult to resolve the centralization-decentralization issue in isolation from specific problems, practices, and situational factors. Some measure of centralized planning and decision making need not imply that all significant decisions must be made centrally.

Autonomy vs. Coordination. This issue is closely related to the preceding one; it involves arriving at some workable compromise between achieving the necessary coordination among individual activities and giving units the degree of autonomy which they desire. Reactions against coordination may stem in part from the particular strategy adopted for achieving the coordination such as hierarchical directives or standardized procedures. Where coordination conflicts with the emphasis on autonomy, more acceptable approaches--communication and information exchange or group decision processes--may overcome some of the difficulties.

Increased Participation in Policy Formation. If planning processes are to include changes in goals as well as means, there are possibilities for problems with respect to involving the people who *should be* involved to sufficient degree. Some of the questions which must be faced are: How can the public become more actively

involved in the definition of educational goals? How can the "will of the people" influence policies? What possibilities need to be explored for involving students and teachers in the planning process? What will motivate people to take advantage of opportunities for participation? What will make the existing structures more receptive to increased participation? Although participation has long been advocated--and is assumed to obtain--present practices probably leave much to be desired.

Providing Continuous Feedback and Self-Critical Evaluation. The continuous nature of planning (rolling or iterative) and the importance of evaluation are implicit in the concept of planning as a *dynamic multi-phase and multi-level process consisting of several feedback cycles*...integrated by channels of information and communication (OECD, 1970a:17). Perhaps it is the development of appropriate feedback cycles which will prove to be the most difficult part of implementing a planning concept. Both procedures and structures must be developed to provide critical levels of feedback with minimal time lags. Even if the structures are developed, the system must still be receptive to feedback as well as willing to adjust; this is problematic at all decision levels but particularly so at the level of policy decisions. To what extent political decision makers are prepared to revise their policies and run the risk of engaging in what might be viewed as "error-correction" remains to be determined.

Linking Planning to Research and Development. One of the

main reasons why this may be difficult to achieve is the existing separation among these functions or activities; however, if there is to be planning for change and innovation, then research must be fitted more closely to planning activities. In order to achieve the necessary linkage, there must be a change of posture on the part of both researchers and policy makers. Researchers must be influenced by the possibility that their products could (or should) influence policy while policy makers need to be sensitive to the contribution which research might offer to setting new directions for policy.

A particular facet of this problem has to do with organizing to incorporate futures research into the planning process. In particular, what is needed is

> ...policy-oriented educational futures, which means that we have to elaborate the feasibility of the futures by describing the strategies to go from the present to the future. An educational future has to be related to the present by describing the concrete policy decisions which are required to reach that future (OECD, 1970a:27-28).

This particular emphasis on futures studies ignores methodological and organizational problems which relate to the studies themselves, and considers only planning-relevant aspects. Obviously, the extent to which such studies can be related effectively to planning depends upon the resolution of some of these other difficulties.

Setting Objectives. Most analyses of planning must sooner or later come to grips with the problem of objectives. Coombs (1970:55) states that this concern should be one of the first:

> ...the essential first step toward improving an educational system's relevance and performance is to re-examine and

> clarify its basic aims and priorities and the more specific objectives of each of its sub-systems, to ensure that they are compatible with one another and with the society's major goals, priorities, and needs.

As is abundantly clear to all those who have been involved in education, many of the objectives are only vaguely defined and some may not even be recognized. Moving to a state of clearly specified operational objectives which can be used in evaluation will not be an easy task.

The issues which have been discussed above are only a sample of the types of difficulties which are likely to be encountered in operationalizing a concept of planning. Some of the difficulties, perhaps most of them, cannot be resolved before planning is initiated. If that were attempted, planning might never become operational; instead the difficulties must be resolved in the course of carrying out planning. What is required at the outset is some general concept of what is to be achieved and the basic structural provisions for undertaking the task.

Organizing for Planning

The general concept of planning which has been outlined in this paper, and in some of the sources on which it relies for support, have made it abundantly clear that planning functions cannot be restricted to specialized units. Indeed, it has been implied

that planning is little more than what might be termed *good* administration (Lyons, 1970:75). Perhaps we have rediscovered planning as one of the classical components of the administrative process which is worthy of much more attention than it has received in the past. Organizing for planning means, in part, making existing administrative structures more planning and innovation oriented, more conscious of objectives, and more prepared to consider various alternatives in the pursuit of objectives. However, organizing for planning also means that there is a need for new structures and institutions; the infusion of improved management techniques into existing structures will not suffice.

Centralized Planning Units

Historically, the issue in educational planning has not been whether or not to have centralized planning units but rather where such units should be located. The ultimate decision is based on considerations such as the accepted definition of planning, the expectations held for the planning unit, and the relationship of educational planning to economic planning, among others. Because of the variations in these factors there has been much variation also in the types of structures which have been established for educational planning. They range from the highly complex (or so they appear) structures and operations in France (Poignant, 1970) to some relatively simple administrative provisions in smaller, developing countries. Similarly, specific functions range from

authoritative decision making to information processing and advisory services.

As has been mentioned before, one of the major difficulties in implementing planning is that of relating the planning activities to actual decision making or policy formation. In the structural resolution of the problem it is possible to err in at least two directions: (1) the planning unit may be so placed that it is seen as a threat to existing administrative structures, that it encounters resistance, and that conflict results; or (2) the unit may be placed so far down the hierarchy that it is too weak and perhaps too technically oriented to have any influence on decisions. One possible solution to the problem involves dividing the planning responsibilities in such a way that the upper ministerial levels are themselves involved in planning and providing adequate technical support through creation of specialized planning units.

Where specialized planning units have been created they have tended to "provide the information on which decisions *may* be taken rather than advice on the decisions that *should* be taken"(OECD, 1970b:15). Eide (1970:23-24) strongly supports the service-advisory role for planning units; he sets out the following guidelines:

1. a planning unit must be part of the organization it shall serve;
2. its task is to provide service, not to exert prescriptive authority over other units;
3. its relationship to other units must be horizontal, and communication should normally not pass superior points of coordination;

4. the products of its work should normally serve as inputs into products finalized by other units;

5. the planning unit should not be used by the top leadership as a control mechanism over other units; and

6. the unit should not be used to defend particular policies or practices.

The creation of such planning units within provincial departments of education has decided advantages if coupled with greater sensitivity to the need for planning at all levels. In the interests of achieving both high levels of expertise at the technical level, as well as coordination of planning activities and effective use of information, a single planning unit would seem to be preferable to a more dispersed planning capability. The chief functions of such a unit would be to monitor the effect of existing policies, to prepare forecasts of future demands and developments, to outline the possible effect of anticipated policy changes, to prepare quantitative models for analyzing costs and enrollments, and in general, to provide a comprehensive information base for policy review and policy implementation.

It would also seem desirable for the planning unit to have liaison with planning units in other branches of government, to have close relations with research units outside of government, and to work with regional and local planning authorities in education; in these latter relationships, the planning unit should operate strictly as a service, information-providing agency.

Other Units

It has been suggested that both the variety and the amount

of work in planning necessitates that different units assume responsibilities for different planning activities (OECD, 1970a:30). If programming, implementation, and evaluation are viewed as different phases of the planning process, the various planning agencies should have differential involvement in these three phases. Existing structures might best be equipped to carry out implementation while additional provisions for programming and evaluation might need to be made both internally and externally. The centralized planning unit might have primary responsibility for programming but only partial responsibility for evaluation. For a more thorough evaluation, external agencies may need to be created; perhaps even "a *dual system* of units inside and outside the Ministry of Education should be developed" (OECD, 1970a:33). Something approaching the dual system might stimulate the more intensive review of policies both within and outside of education departments.

The activities which take place outside of existing structures should be directed toward examining the broad policies of the educational system, providing feedback to policy makers, and creating opportunities for public participation in the review of these policies. One possibility for carrying out this type of activity is the continuation and expansion of commissions or committees which subject either the entire system or specific segments of it to review. Another alternative would be to create a permanent council whose chief function would be to monitor the

effects of present policies, to provide intensively researched reports to the public on specific aspects of education, and to advise the government on alternative educational policies. The study and analysis of alternative educational futures might become one phase of the work of this council. In its actual operation, the permanent secretariat of the council might be relatively small; the actual research and reporting could be carried out through task forces, commissioned studies, and briefs from the public. Appropriate relationships with the planning unit within the education department would need to be established.

In addition to the permanent planning unit within the education department, there may also be a need for special purpose commissions which can devote adequate attention to particular areas of development for specified periods of time. If such commissions are established, the planning unit would have a particularly significant service function to perform.

Regional and Local Planning

Planning at regional and local levels does not mean so much adding structures as it does infusing present structures with a planning orientation and injecting appropriate management techniques. Bringing about greater rationality in decision making may mean training present personnel in the use of advanced management techniques, intensive evaluation of practices, and the re-examination of objectives and priorities. In order to bring

about the increased public participation which has been discussed previously, existing administrative structures will probably have to be changed. As the rural areas become even more sparsely populated, there may develop a decided need for regional forms of organization. On the other hand, the urban administrative structures may already be too far removed from both the schools and the public; some form of decentralization may be in order.

Implicit in a discussion of planning at the local level is the assumption that there is sufficient scope in decision making at this level to warrant a concern for planning, particularly for developmental planning. If adequate scope does not exist then planning is reduced in the main to making allocation decisions with only limited opportunities for examining goals. The need for centralized planning in relation to policy development is almost self-evident; however, centralized planning should also be *indicative* rather than *imperative* to use Poignant's (1970) terms in that it should allow for the reconsideration and the re-examination of general plans at lower levels as well as for the development of unique plans. Only if this holds will there be a significant planning function to perform at the school and classroom levels.

Conclusion

We have presented an outline of a general concept of

educational planning as defined by various characteristics. It has been suggested, for example, that in order to be effective planning should permeate a system, should be carried out continuously, should be concerned with all aspects of education, and should be directed towards change. Some of the implications of this general concept for system management and organization were also discussed: the institutionalization of planning, the addition of new structures, the adoption of planning techniques, and so forth. We have also recognized some possible problems in implementing such a concept: providing for participation, reconciling coordination with autonomy, making effective use of research, and selecting goals, among others.

Little has been said about the importance of the environment for planning if planning activities are to have some impact on other system processes. Since it seems probable that the characteristics of the setting will have a profound effect on outcomes, at least a brief specific reference to this is in order. Of all possible influential environmental conditions, perhaps the most important is the general attitude towards planning and other phases of the decision making process. We believe that educational planning can be effective and successful only if there exists a readiness to examine current conditions critically and a willingness to consider alternative strategies for future developments. If this climate obtains, then we are probably ready to undertake a more systematic form of planning than we have in the past. Perhaps some of the guidelines suggested in this paper may

prove useful in furthering the development of a planning process, in identifying some potential pitfalls, and in suggesting some possible structural provisions. Obviously, it is far from being a complete prescription for "how to plan"; it may not do much more than convey the message that there is no simple solution to the problem.

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